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NAS WHITING FIELD
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PROJECT COMPLETION REPORT OF INTERIM REMOVAL ACTION AT SITES 6, 16, AND 38
NAS WHITING FIELD FL
12/11/2002
CH2M HILL



CH2M HILL

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December 11, 2002

Ms. Linda Martin, ES318
Southern Division, Naval Facilities Engineering Command
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RE: Contract No. N62467-98-D-0995
Contract Task Order 0011
Naval Air Station (NAS) Whiting Field - Milton, Florida
Project Completion Report for the Interim Removal Actions at Sites 6, 16 and 38

Dear Ms. Martin:

CH2M HILL Constructors, Inc. (CCI) is pleased to provide the enclosed Project Completion Report for the Interim Removal Actions at Sites 6, 16 and 38 (Revision 01) at Naval Air Station (NAS) Whiting Field in Milton, Florida. Enclosed is one Compact Disk (CD) and one hard copy of the text only.

If you have any questions or comments regarding the enclosed, please do not hesitate to contact me at (850) 939-8300, ext. 17 or atwitty@ch2m.com.

Sincerely,

CH2M HILL

A handwritten signature in black ink, appearing to read "Amy Twitty", with a stylized flourish at the end.

Amy Twitty, P.G.
Project Manager

cc: Mark Shull/NTR NAS Pensacola (CD only)
Craig Benedikt/EPA (1 hard copy text and 1 CD)
Jim Cason/FDEP (1 hard copy text and 1 CD)
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Jim Holland/NASWF (1 hard copy text, 1 full copy for library and 1 CD)
Phillip Ottinger/TtNUS (1 hard copy text, 1 full copy for AR and 1 CD)
CCI Project File No. 151168

**Project Completion Report
Interim Removal Actions at
Sites 6, 16, and 38
Naval Air Station Whiting Field
Milton, Florida**

Revision 01

USEPA ID #FL217002344

**Contract No. N62467-98-D-0995
Contract Task Order 0011**

Submitted to:

**U.S. Naval Facilities
Engineering Command
Southern Division**

Prepared by:



115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346

December 2002

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Interim Removal Actions at
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**Submitted to:
U.S. Naval Facilities
Engineering Command
Southern Division**

Prepared by:



December 2002

Prepared/Approved By:

Amy Twitty, Project Manager

December 10, 2002

Date

Approved By:

Scott Smith, Deputy Program Manager

December 10, 2002

Date

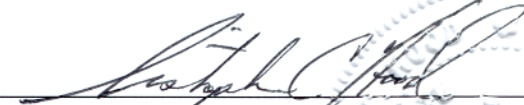
Client Acceptance:

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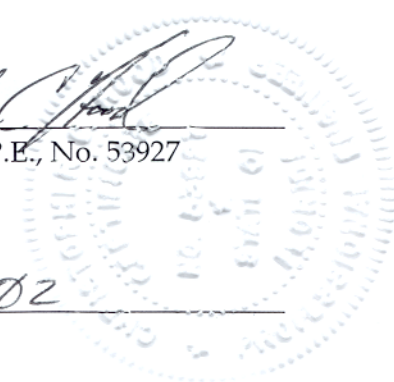
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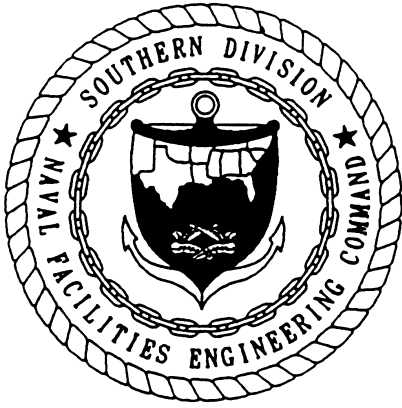
This Project Completion Report for Interim Removal Actions at Sites 6, 16, and 38, Naval Air Station Whiting Field, Milton, Florida, was prepared under the direction of a Florida registered professional engineer.



Christopher C. Hood, P.E., No. 53927


12-9-02

Date



**CERTIFICATION OF TECHNICAL
DATA CONFORMITY (DECEMBER 2002)**

The contractor, CH2M HILL Constructors, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. N62467-98-D-0995, Contract Task Order (CTO) No. 0011, is complete and accurate and complies with all requirements of this contract.

DATE: December 2, 2002

NAME AND TITLE OF CERTIFYING OFFICIAL:

Amy Twitty, P.G.
Project Manager



Certificate of Completion

CH2M HILL Constructors, Inc., attests, to the best of its knowledge and belief, the interim remedial action at Sites 6, 16, and 38, delivered under Contract No. N62467-98-D-0995, Naval Air Station Whiting Field, Milton, Florida, Contract Task Order (CTO) No. 0011, has been completed, inspected, and tested, and is in compliance with the contract.


Project QC Manager

7/9/02
Date

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FOREWARD

To meet its mission objectives, the U.S. Navy performs a variety of operations, some requiring the use, handling, storage, or disposal of hazardous materials. Through accidental spills and leaks and conventional methods of past disposal, hazardous materials may have entered the environment in ways unacceptable by today's standards. With growing knowledge of the long-term effects of hazardous materials on the environment, the Department of Defense (DOD) initiated various programs to investigate and remediate conditions related to suspected past releases of hazardous materials at their facilities.

One of these programs is the Installation Restoration (IR) Program. This program complies with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA), the Resource Conservation and Recovery Act (RCRA), and the Hazardous and Solid Waste Amendments of 1984. These acts establish the means to assess and clean up the hazardous waste site for both private-sector and Federal facilities. The CERCLA and SARA act form the basis for what is commonly known as the Superfund program.

Originally, the Navy's part of this program was called the Naval Assessment and Control of Installation Pollutants (NACIP) program. Early reports reflect the NACIP process and terminology. The Navy eventually adopted the program structure and terminology of the standard IR program.

The IR program is conducted in several stages, as follows:

- Preliminary Assessment (PA)
- Site Investigation (SI) (formerly the PA and SI steps were called the initial assessment study under the NACIP program)
- Remedial Investigation (RI) and Feasibility Study
- Remedial design and remedial action

The Southern Division, Naval Facilities Engineering Command manages and the U.S. Environmental Protection Agency and the Florida Department of Environmental Protection (formerly Florida Department of Environmental Regulation) oversee the Navy environmental program at NAS Whiting Field. All aspects of the program are conducted in compliance with state and Federal Regulations, as ensured by the participation of these regulatory agencies.

Questions regarding the CERCLA program at NAS Whiting Field should be addressed to Ms. Linda Martin, Code ES318, at (843) 820-5574.

Executive Summary

As outlined in the project scope, CCI conducted the following activities at the Naval Air Station (NAS) Whiting Field Sites 6, 16, and 38 in May 2002:

- Mobilization and setup
- Site utility clearance
- Excavation of soil at Sites 6, 16, and 38
- Soil sampling at Site 16
- Removal, transportation, and offsite disposal of excavated soil
- Collection and temporary onsite storage of decontamination liquids for disposal
- Placement and compaction of clean backfill soil in excavation areas
- Site restoration
- Decontamination and demobilization

The March 2001 Feasibility Study indicated that the contaminants of concern (COCs) for the surface soil at Site 6 were benzo(a)pyrene (Phase IIA sample 6SB03) and total recoverable petroleum hydrocarbons (TRPH) (Phase IIA sample 6SB04). In August 2001, 8 native surface soil samples and 15 subsurface samples were taken in the vicinity of Phase IIA samples 6SB03 and 6SB04 for the source delineation of benzo(a) pyrene and TRPH. It was determined that benzo(a)pyrene exceeded the U.S. Environmental Protection Agency (USEPA) Region IX preliminary remediation goal (PRG) of 290 micrograms per kilogram ($\mu\text{g}/\text{kg}$), and TRPH exceeded the Florida Department of Environmental Protection's (FDEP's) soil cleanup target level (SCTL) of 340 milligrams per kilogram (mg/kg). Based on the exceedances found during the Remedial Investigation (RI) activities and the delineation established by the August 2001 investigation, it was decided to remove the soil at the former Phase IIA sample locations 6SB03 and 6SB04.

Two areas were excavated at Site 6; each measured 10 feet by 10 feet and approximately 5 feet deep. Approximately 37 cubic yards (52.17 tons) of nonhazardous soil were removed from the combined areas. As the soil was being excavated, it was loaded into transport vehicles and transported to the approved disposal facility, Springhill Landfill in Campbellton, Florida. The excavated areas at Site 6 were immediately (same day) backfilled to the same elevation as the surrounding surface. The areas were then covered with centipede sod and fertilized.

At Site 16 RI Phase IIB surface soil sample location 16SO0601, 4 of the 11 additional surface soil samples analyzed for polycyclic aromatic hydrocarbons (PAHs) exhibited benzo(a)pyrene concentrations above the associated USEPA Region IX residential PRG of $62 \mu\text{g}/\text{kg}$. Three of the 4 samples exceeded the USEPA Region IX industrial PRG of $290 \mu\text{g}/\text{kg}$. One of these 4 sample results also exceeded the FDEP industrial SCTL of $500 \mu\text{g}/\text{kg}$. Based on the results of the RI Phase IIB and additional soil investigation in August 2001, the decision was made to remove the soil around former sample location 16SO0601.

The excavated area at Site 16 measured 45 feet by 20 feet and approximately 2 feet deep. The area was determined to contain PAH contaminants above the industrial criteria. Approximately 67 cubic yards (95.37 tons) of nonhazardous soil were removed. The soil was stockpiled until the excavation was complete, then transferred to transport vehicles and transported to

Springhill Landfill in Cambellton, Florida. Prior to completing the backfill, two subsurface soil samples were collected at the bottom of the excavation area and analyzed for PAHs. The results revealed the soil was above the leachability criteria for subsurface soil and that benzo(a)pyrene concentrations in one of the excavation samples slightly exceeded residential, direct exposure. After backfilling was complete at Site 16, fertilizer was applied to the surface soil, at the same elevation as the surrounding surface. No sod was placed on the surface soil at Site 16 because of its remote, wooded location.

A Preliminary Assessment/Site Investigation (PA/SI) of Site 38 was conducted in May 2000. Sample 38SS11/38SS11D exhibited pesticide concentrations of 4,4'-dichlorodiphenyl-dichloroethylene (DDE) and 4,4'-dichlorodiphenyltrichloroethane (DDT) above the USEPA Region IV recommended ecological screening values (ESVs), and alpha-chlordane, gamma-chlordane, and heptachlor epoxide above the USEPA Region IX PRGs of 1,600 µg/kg, 1,600 µg/kg, and 53 µg/kg, respectively, for residential direct exposure. TRPH concentrations in sample 38SS11D also exceeded the FDEP leachability and direct exposure residential standard of 340 mg/kg. Moreover, sample 38SS38 indicated that dieldrin exceeded the USEPA Region IV ESV threshold of 0.5 µg/kg. It was recommended the soils surrounding former sample 38SS11 and 38SS12 locations be excavated based on the PA/SI and additional delineation completed in August and September 2001.

One excavated area at Site 38 measured 10 feet by 10 feet and approximately 2 feet deep. The second area at Site 38 was irregularly shaped and measured 10 feet on two sides and 7.5 feet on the two other sides. Approximately 13 cubic yards of nonhazardous soil were removed from the combined areas. As the soil was being excavated, it was loaded into transport vehicles and transported to the approved disposal facility, Springhill Landfill in Cambellton, Florida. The excavated areas at Site 38 were immediately (same day) backfilled to the same elevation as the surrounding surface. The areas were then covered with centipede sod and fertilized.

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I	Transportation and Disposal Log
J	Manifests, Certified Weigh Tickets and Certificates of Disposal

Acronyms and Abbreviations

AVGAS	aviation gasoline
bls	below land surface
CCI	CH2M HILL Constructors, Inc.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	contaminant of concern
CTO	Contract Task Order
4,4'-DDD	4,4'-dichlorodiphenyldichloroethylene
4,4'-DDT	4,4'-dichlorodiphenyltrichloroethane
DOD	Department of Defense
DQE	data quality evaluation
ESV	ecological screening value
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Residual Petroleum Organic
HLA	Harding Lawson Associate
IR	Installation Restoration
µg/kg	micrograms per kilogram
mg/kg	milligrams per kilogram
MS/MSD	matrix spike/matrix spike duplicate
NACIP	Naval Assessment and Control of Installation Pollutants
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
PA/SI	Preliminary Assessment/Site Investigation
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
PRG	preliminary remediation goal
QA/QC	quality assurance/quality control
RBC	risk-based concentration
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
SARA	Superfund Amendments and Reauthorization Act
SCTL	soil cleanup target level

SVOC	semivolatile organic compound
T&D	transportation and disposal
TAL	target analyte list
TCL	target compound list
TCLP	toxicity characteristic leaching procedure
TRPH	total recoverable petroleum hydrocarbons
TtNUS	Tetra Tech NUS, Inc.
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

1.0 Introduction

CH2M HILL Constructors, Inc. (CCI) was contracted by the Department of the Navy, Southern Division, Naval Facilities Engineering Command (NAVFAC), to prepare this Project Completion Report for work performed by CCI at Naval Air Station (NAS) Whiting Field in Milton, Florida. This work was performed under Response Action Contract No. N62467-98-D-0995, Contract Task Order (CTO) 0011, and in accordance with the management approach outlined in the Contract Management Plan (CCI, 1998), Basewide Work Plan (CCI, November 1999), Work Plan Addendum No. 3 (CCI, 2001a), Data Transfer Memorandum, Additional Soil Sampling at Site 6, Revision 01, (CCI, 2001b), Data Transfer Memorandum, Additional Soil Sampling at Site 16, Revision 01, (CCI, 2001c), and the Data Transfer Memorandum, Additional Soil Sampling at Site 38, Revision 00 (CCI, 2001d).

The objective of this project completion report is to document the activities associated with the completion of the interim removal actions performed by CCI under CTO 0011 at NAS Whiting Field, Milton, Florida, at Sites 6, 16, and 38. The remedial activities were conducted to remove surface soil exceeding target cleanup goals.

1.1 Project Scope

The scope of work for the project includes the following tasks:

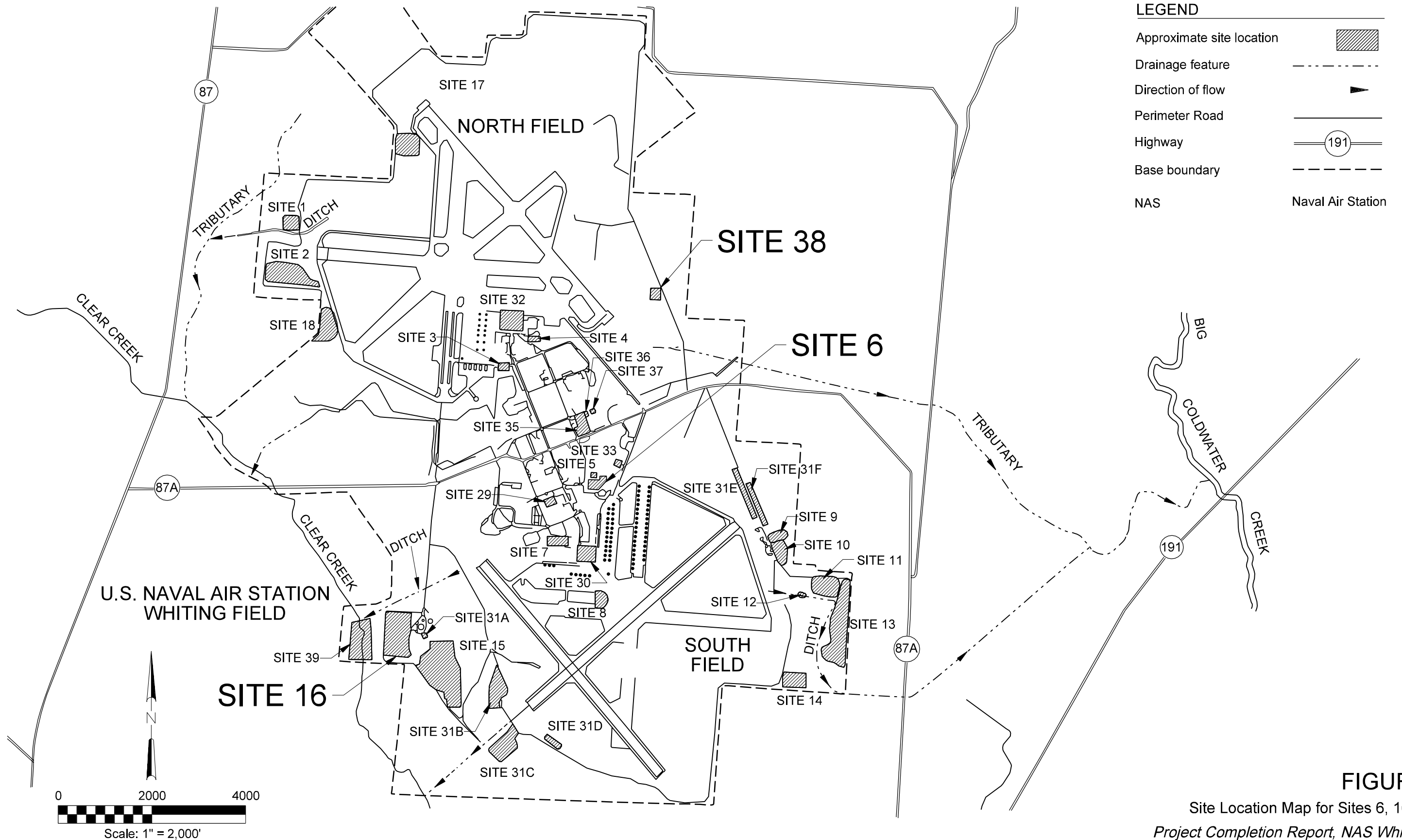
- Mobilization and setup
- Site utility clearance
- Excavation of soil at Sites 6, 16, 38 above the associated cleanup criteria
- Soil sampling at Site 16
- Removal, transportation, and offsite disposal of excavated soil
- Collection and temporary onsite storage of decontamination liquids for disposal
- Placement and compaction of clean backfill soil in excavation areas
- Site restoration
- Decontamination and demobilization

1.2 Site Location and Environmental History

The location and environmental history of Sites 6, 16, and 38 are described below.

1.2.1 Site 6

Site 6 is located in the central portion of NAS Whiting Field in the Midfield area, southeast of the Midfield Maintenance Hangar, Building 1454 (Figure 1-1). Transformers were reportedly drained into the grass ditch east of Building 1454 from the 1940s until 1964.



Polychlorinated biphenyls (PCBs) may have been present in the dielectric fluid drained from the transformers. Runoff from the grassed ditch drains in a northeasterly direction and eventually into Big Coldwater Creek, which is located approximately 2.3 miles east of the disposal site. A former aviation gasoline (AVGAS) storage tank area is adjacent to Site 6 to the northwest (Tetra Tech NUS, Inc. [TtNUS], 2001). Refer to Figure 1-2 for the site plan.

A verification study was performed in 1986 by Geraghty & Miller to provide an assessment of the physical and chemical conditions of the site. This was followed by a Phase I Remedial Investigation (RI) in 1990, which found low levels of PCBs in surface soils. Phase IIA fieldwork and analysis was conducted in 1992 by ABB Environmental Services. The exceedances for the subsurface soil included benzo(a)pyrene and vanadium. In the surface soil, 14 analytes exceeded site-specific background concentrations and either U.S. Environmental Protection Agency (USEPA) Region III Risk-based Concentrations (RBCs) or Florida Department of Environmental Protection (FDEP) Soil Cleanup Target Levels (SCTLs) for direct soil exposure (residential). Arochlor 1260 exceeded the residential cleanup criteria but was below the industrial criteria. Based on the March 2001 Feasibility Study (TtNUS, 2001), the contaminants of concern (COCs) for the surface soil at Site 6 are benzo(a)pyrene (Phase IIA sample 6SB03) and total recoverable petroleum hydrocarbons (TRPHs) (Phase IIA sample 6SB04). TRPH concentrations in the surface soil at 6SB04 were above FDEP industrial criteria; however, the TRPH concentration in the 5- to 7-foot deep subsurface soil sample at sample 6SB04 was below cleanup criteria. Vanadium also exceeded the current FDEP residential SCTLs. In anticipation of the future revision of Chapter 62-777 Florida Administrative Code (FAC), which is proposed to increase the vanadium cleanup criteria (2003), only benzo(a)pyrene and TRPH were addressed in the 2001-2002 investigation.

On August 9, 2001, CCI collected 8 native surface soil samples, 15 subsurface samples, and associated quality assurance/quality control (QA/QC) samples in the vicinity of Phase IIA samples 6SB03 and 6SB04 for the source delineation of benzo(a)pyrene and TRPH, respectively. Figures 1-3 and 1-4 detail the location and results of the delineation samples taken from former sample locations 6SB03 and 6SB04, respectively.

Over the course of investigations at this site, USEPA Region IV changed its criteria for hazardous waste-related site evaluations from USEPA Region III RBCs to USEPA Region IX preliminary remediation goals (PRGs). Therefore, the analytical results were compared to the USEPA Region IX PRGs and the FDEP SCTLs.

Based on the exceedances found during the RI activities and the delineation established by the August 2001 investigation, an area measuring 10 by 10 feet and approximately 5 feet deep was recommended to be excavated in each of the former Phase IIA sample locations 6SB03 and 6SB04. The combined soil volume from the two areas proposed for excavation was approximately 37 cubic yards. A complete summary of the soil delineation is presented in CCI's Data Transfer Memorandum, Results of Additional Soil Sampling at Site 6 (CCI, 2001b).

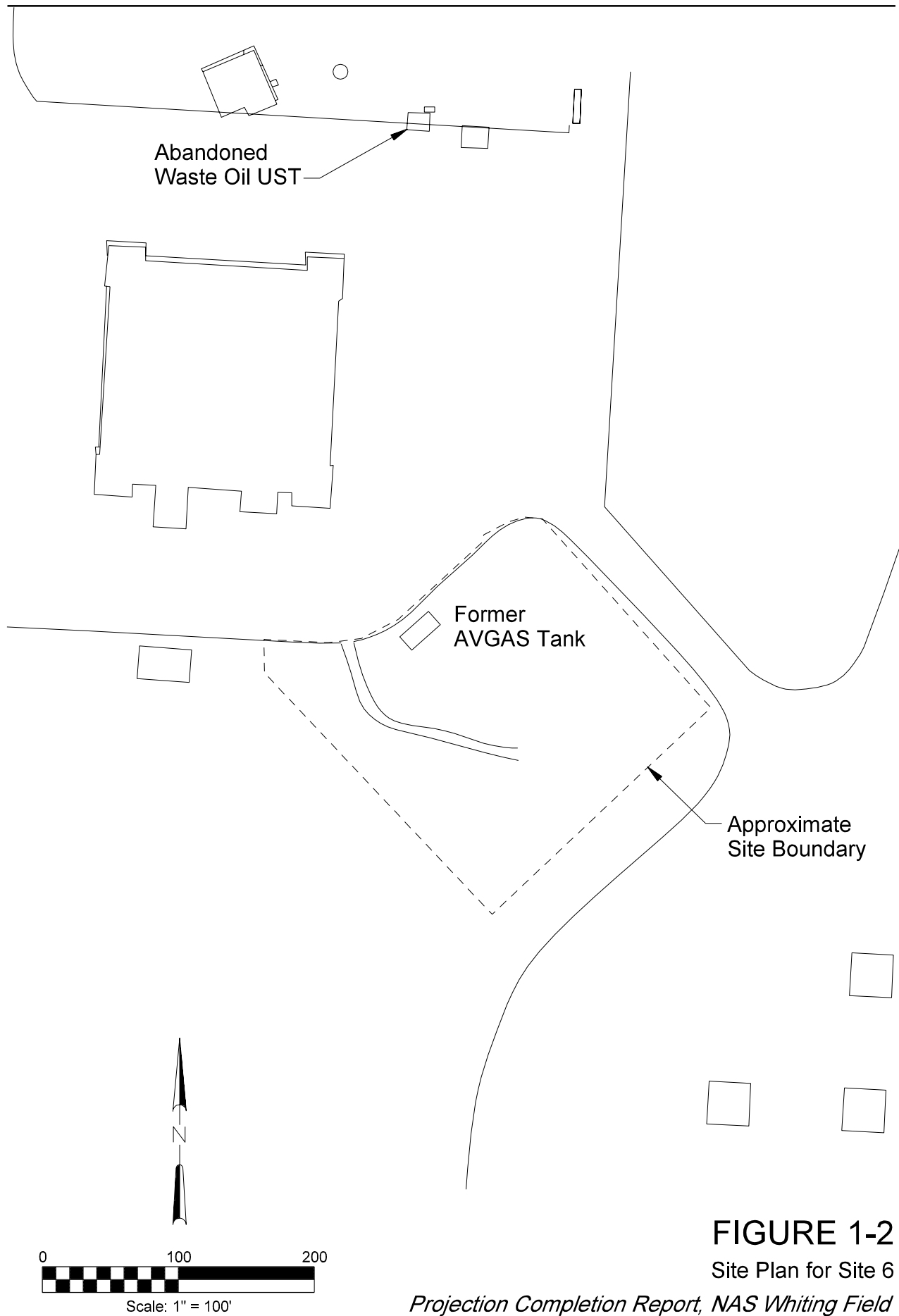


FIGURE 1-2
Site Plan for Site 6

Projection Completion Report, NAS Whiting Field

LEGEND

Phase IIA surface soil
sample and designation

6SB03



Additional grid surface soil
sample and designation

6SS13



Notes:

1. EPA Region IX Residential and Industrial Soil Preliminary Remedial Goals (PRGs) for benzo(a)pyrene are 62 µg/kg and 290 µg/kg, respectively.
2. FDEP Direct Exposure Residential and Industrial Soil Cleanup Target Levels (SCTLs) for benzo(a)pyrene are 100 µg/kg and 500 µg/kg, respectively.
3. ND = Non-detect

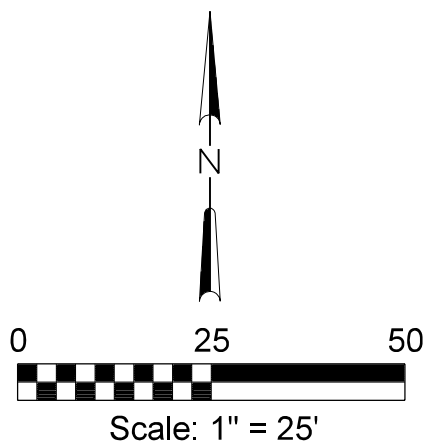
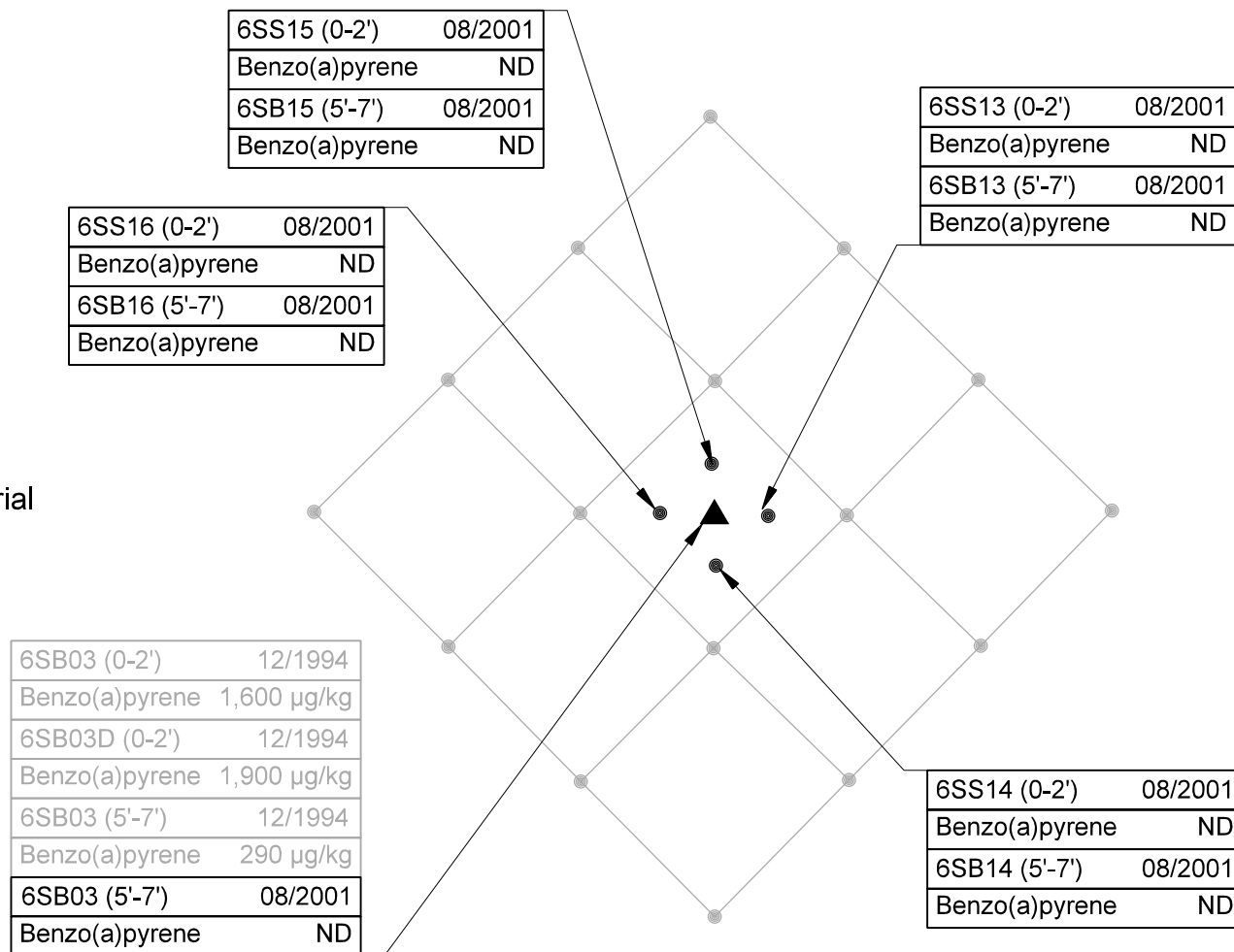


FIGURE 1-3

Surface Soil Sample Exceedances
Grid for 6SB03 at Site 6

Project Completion Report, NAS Whiting Field

LEGEND

Phase IIA surface soil sample and designation



Additional grid surface soil sample and designation



Notes:

1. TRPH = Total Recoverable Petroleum Hydrocarbons
2. There are no EPA Region IX Residential and Industrial Soil Preliminary Remedial Goals (PRGs) for TRPH.
3. FDEP Direct Exposure Residential and Industrial Soil Cleanup Target Levels (SCTLs) for TRPH are 340 mg/kg and 2,500 mg/kg, respectively.
4. ND = Non-detect

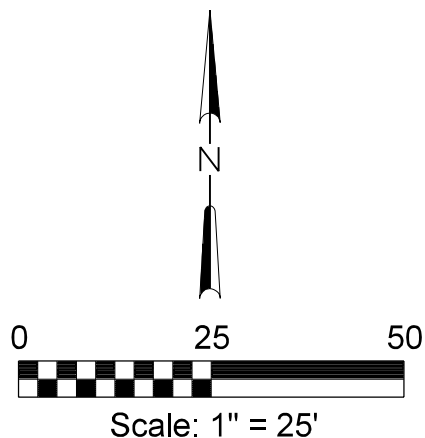
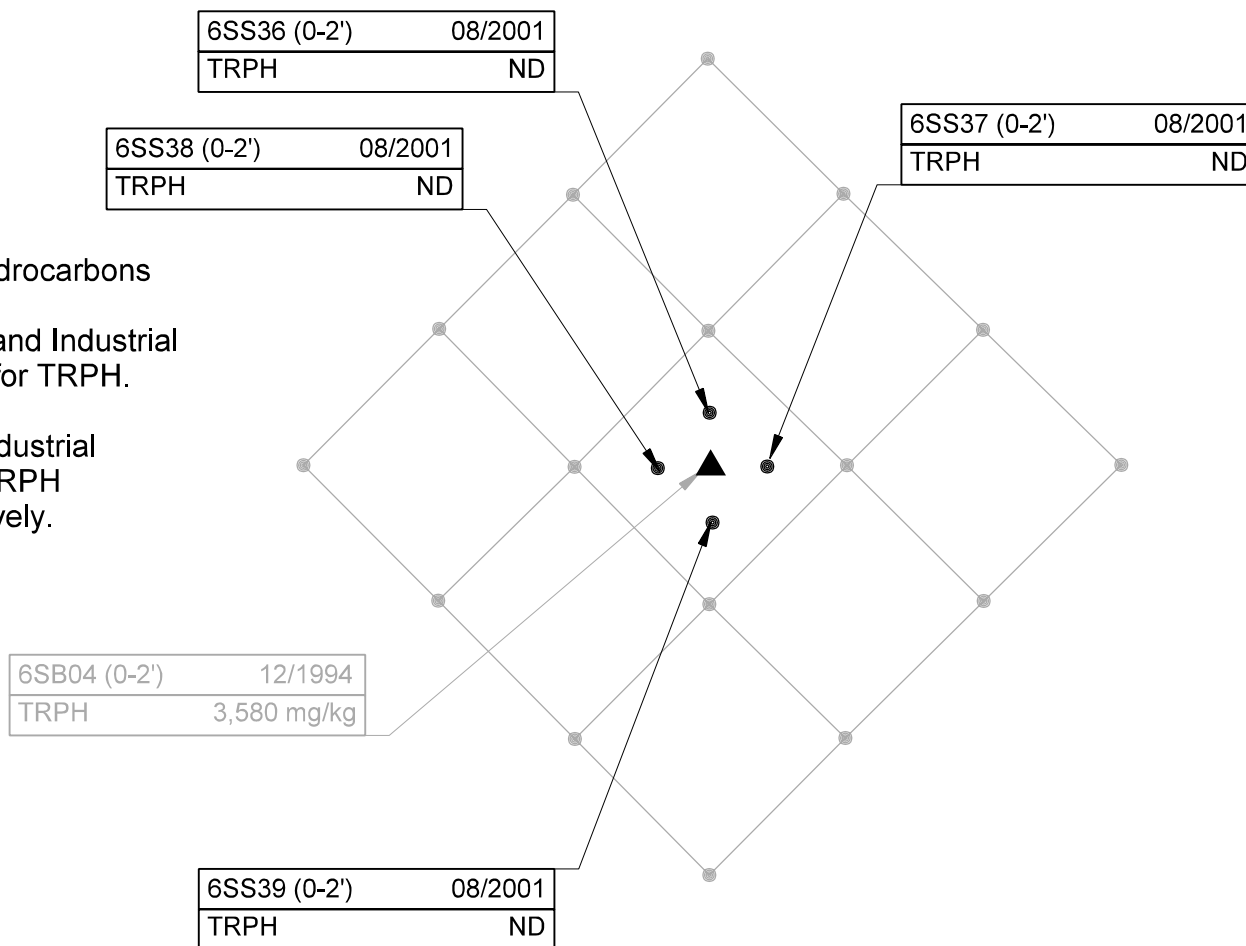


FIGURE 1-4

Surface Soil Sample Exceedances
Grid for 6SB04 at Site 6

Project Completion Report, NAS Whiting Field

1.2.2 Site 16

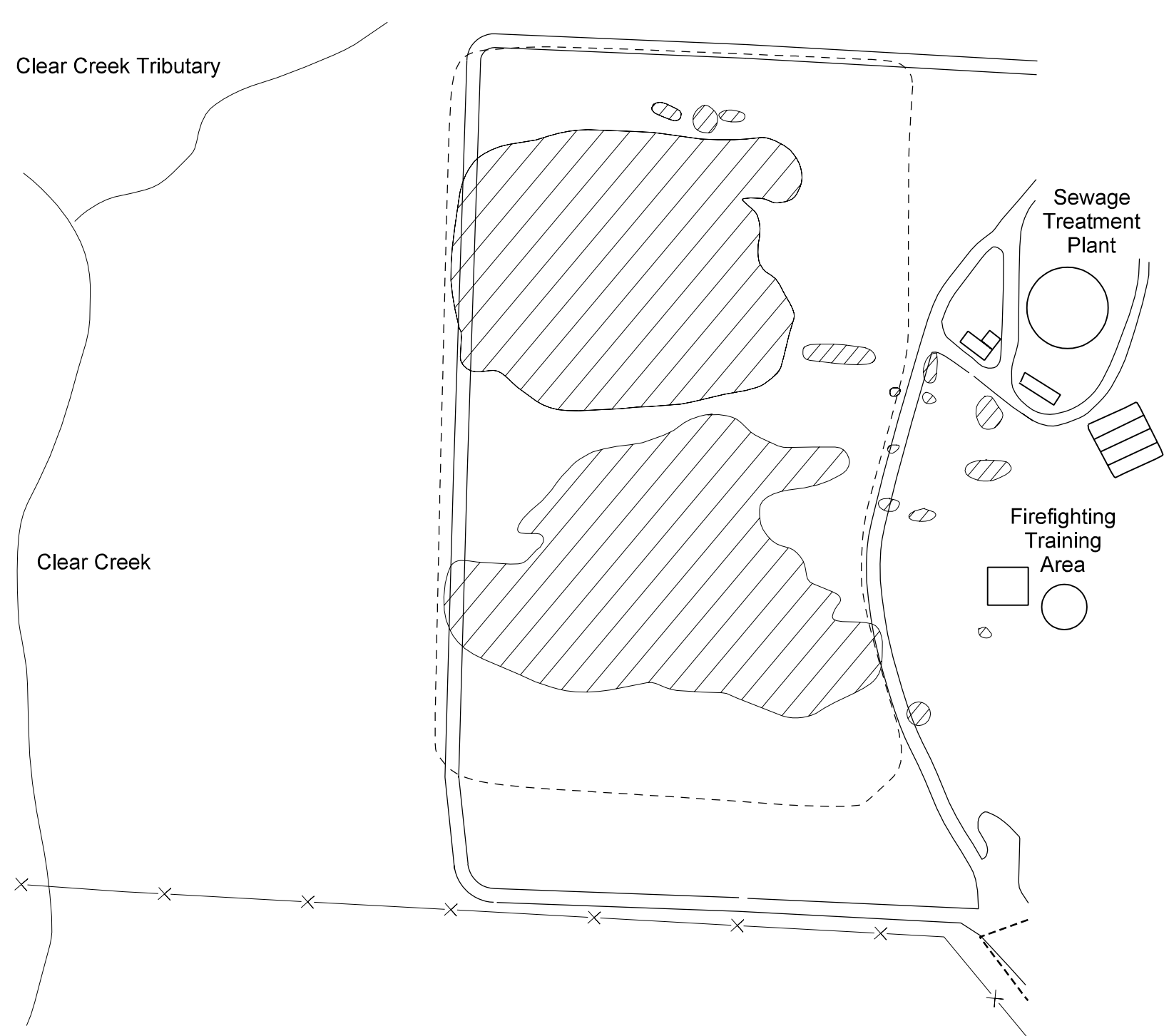
Site 16 is located in the southwest area of NAS Whiting Field, directly west of the South Airfield (Figure 1-1). The site is rectangular in shape, currently forested with planted pine trees, and covers approximately 12 acres. Figure 1-5 presents the site layout. The site was used as the primary waste disposal area for NAS Whiting Field from 1943 to 1965. The two large pits located on this site were used as repositories for general refuse. In addition, waste from aircraft operations and maintenance was disposed at an estimated annual volume of 3,000 and 4,000 tons. To reduce the volume, diesel fuel was used to ignite the waste, which included paints, solvents, waste oil, hydraulic fluid, and wastewater from paint stripping and other operations. Dielectric fluids containing PCBs may also have been disposed of at this site. A small, shallow ephemeral wetland (less than 0.1 acre and less than 2 feet deep) is located along the site's eastern boundary. The land surface slopes to the west at an average grade of 5 percent (Harding Lawson Associate [HLA], 2000).

A surface soil assessment was conducted during the RI of Site 16. During Phase IIA, three surface soil samples (16-SL-01 through 16-SL-03) were collected, and during Phase IIB, 17 surface soil samples (16SO0101 through 16SO1701) were collected. Surface soil samples were collected from 0 to 12 inches below land surface (bls).

Five subsurface soil samples were collected during the excavation of 10 test pits at Site 16 during Phase IIA investigations. These samples were collected from depths ranging from 2 to 10.5 feet bls. The samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides, PCBs, metals, and cyanide. Eight analytes (calcium, chromium, iron, manganese, potassium, vanadium, zinc, and cyanide) were detected at concentrations exceeding the background screening values. However, no samples exceeded industrial standards for either the FDEP SCTLs or the USEPA Region III RBCs. Arsenic was detected in all five subsurface soil samples; three of the five samples and the duplicate sample exceeded the industrial FDEP SCTL and USEPA Region III RBC for arsenic. Based on recent FDEP guidance, analysis of soil at NAS Whiting Field Outlying Landing Fields, and the absence of site-related factors, arsenic levels at Site 16 are comparable to naturally occurring concentrations and do not require further consideration (FDEP, 2001).

Lead was also detected in all five subsurface soil samples and exceeded the USEPA Region III residential RBC in two of the samples, but was below the associated industrial criteria. Pesticides were detected at concentrations below the residential FDEP SCTLs and USEPA Region III industrial RBCs. No PCBs were detected in the subsurface soil samples (HLA, 2001).

All surface soil samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and target analyte list (TAL) inorganics. Of the three Phase IIA surface soil samples, only one analyte in one sample location exceeded criteria. Dieldrin was detected above leachability standards, but below residential and industrial criteria. Phase IIB surface soil samples exhibited concentrations of various polynuclear aromatic hydrocarbons (PAHs) and other



LEGEND	
Interpreted landfill areas	
Approximate site boundary	
Base boundary / fence	

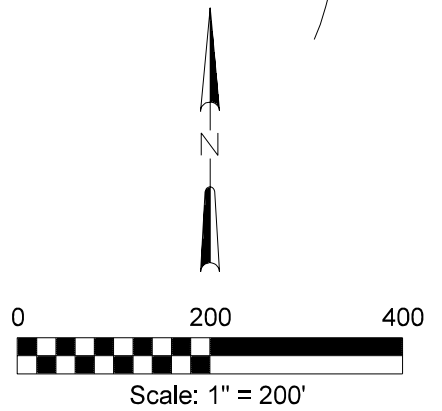


FIGURE 1-5
 Site Plan for Site 16
Project Completion Report, NAS Whiting Field

inorganics above USEPA Region III RBCs and/or FDEP residential SCTLs. Exceedances included benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, indeno(1,2,3-cd)pyrene, antimony, arsenic, barium, copper, iron, lead, and vanadium. One pesticide, dieldrin, was above the residential and leachability standards but below the industrial cleanup value. Of the analytes detected, only two PAHs, benzo(a)pyrene and dibenz(a,h)anthracene, were found at concentrations above industrial standards. These exceedances were detected at former Phase IIB sample location 16SO0601 (HLA, 2000). Therefore, one area at Site 16 in the vicinity of sample 16SO0601 required further investigation/delineation.

On August 7, 2001, CCI collected an additional 22 native surface soil samples and associated QA/QC samples in the vicinity of Phase IIB sample location 16SO0601 for the source delineation of PAH constituents. Over the course of investigations at this site, USEPA Region IV has switched the criteria used for hazardous waste-related site evaluations from USEPA Region III RBCs to USEPA Region IX PRGs. Therefore, analytical results were compared to the USEPA Region IX PRGs and the FDEP SCTLs. Figure 1-6 details the location and results of the delineation samples taken from former sample location 16SO0601.

Based on the results of the RI and the additional soil investigation conducted in August 2001, PAH contamination above industrial criteria extends over an area measuring 45 by 20 feet and approximately 2 feet deep around former Phase IIB sample location 16SO0601. It was recommended that approximately 67 cubic yards of soil be excavated as part of the interim removal action at Site 16. Details are provided in CCI's Data Transfer Memorandum, Results of Additional Soil Sampling at Site 16 (CCI, 2001c).

1.2.3 Site 38

Site 38 is located in the northern portion of NAS Whiting Field, immediately west of the 7th hole fairway on the NAS Whiting Field Golf Course. Refer to Figure 1-1 for the site location.

The site includes the area of former Building 2877, which was located approximately 276 feet west of the patrol road and 860 feet north of the white lattice fence associated with the pistol firing range. Figure 1-7 presents the site plan. Building 2877 was formerly the golf course maintenance building and was used as a storage facility for pesticides and for battery reconditioning. A 1-acre area north of the building was used to rinse trucks after they were used to spray pesticides. The pesticides stored in Building 2877 included organophosphates, herbicides, fungicides, chlordane, heptachlor epoxide, and some hydrocarbon pesticides. Pesticide storage was discontinued in 1983 after the completion of a new pesticide facility.

Battery acid from golf cart batteries was reportedly drained into a sink inside Building 2877, which in turn drained into a tank consisting of an underground concrete culvert open at one end. The tank retained approximately 50 gallons of liquid before draining to the subsurface. The tank was filled with rock sometime between 1974 and 1979, and battery acid draining was discontinued. Building 2877 was demolished in 1993 during an upgrading and reconstruction project at the NAS Whiting Field Golf Course. The concrete building foundation is believed to still be present; however, it is not known if the former drainage tank is still present (TtNUS, 2000).

LEGEND

Phase IIB surface soil sample and designation	16SO0601 △
Additional grid surface soil sample and designation	16SO3401 ●

Notes:

1. EPA Region IX Residential and Industrial Soil Preliminary Remedial Goals (PRGs) for benzo(a)pyrene and dibenz(a,h)anthracene are 62 µg/kg and 290 µg/kg, respectively.
2. FDEP Direct Exposure Residential and Industrial Soil Cleanup Target Levels (SCTLs) for benzo(a)pyrene and dibenz(a,h)anthracene are 100 µg/kg and 500 µg/kg respectively.
3. NE = No exceedance of applicable criteria
ND = Non-detect

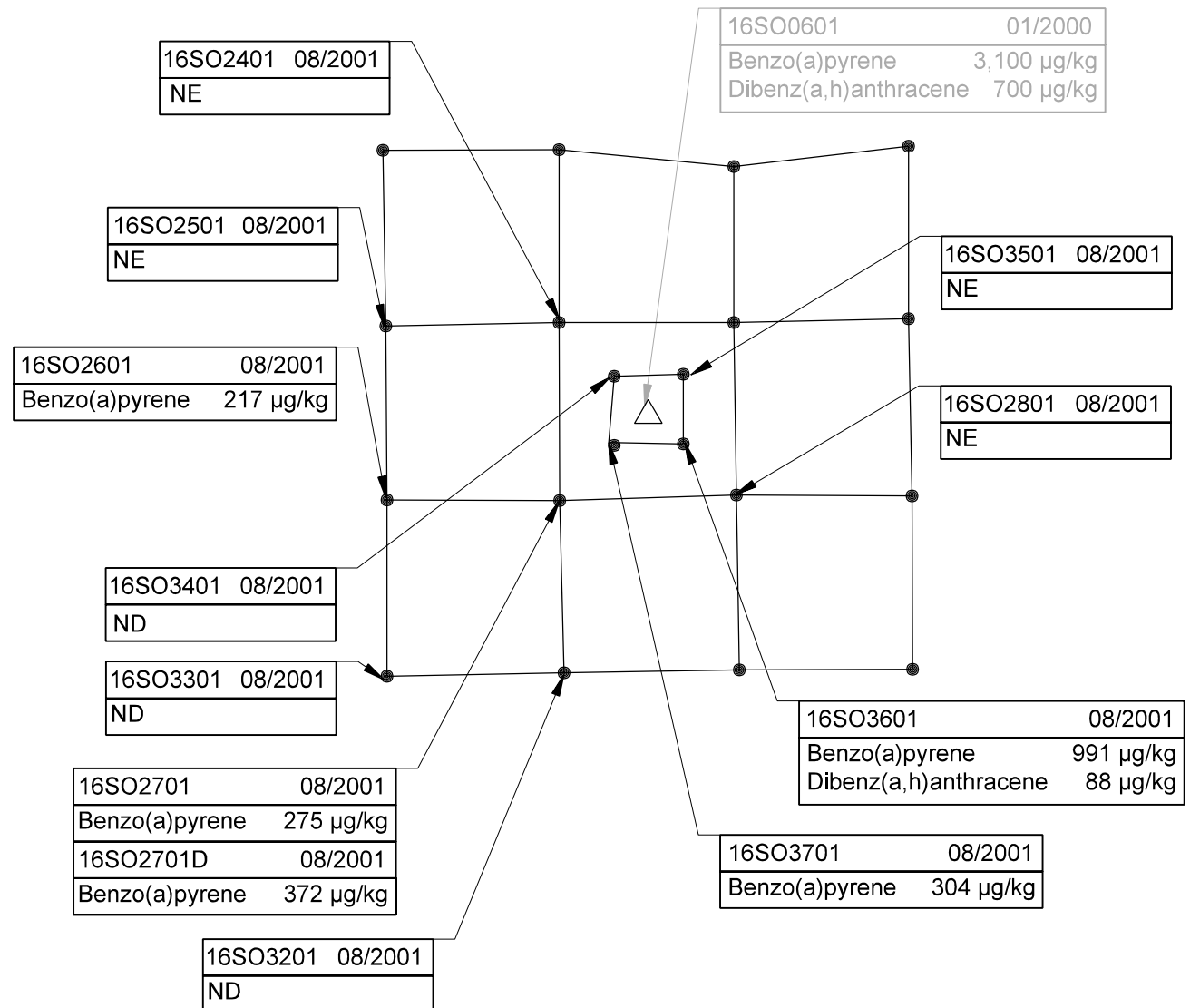
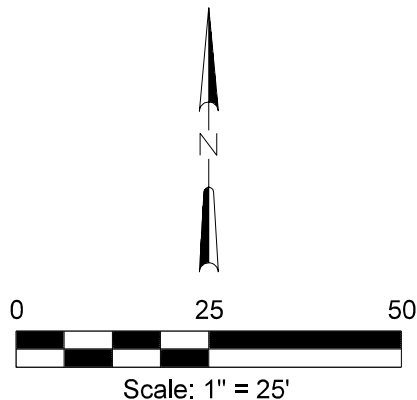


FIGURE 1-6

Surface Soil Sample Exceedances
Grid for 16SO0601 at Site 16

Project Completion Report, NAS Whiting Field

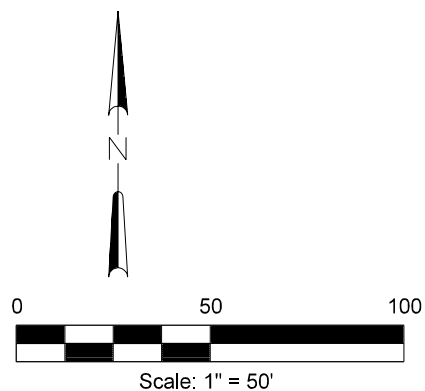
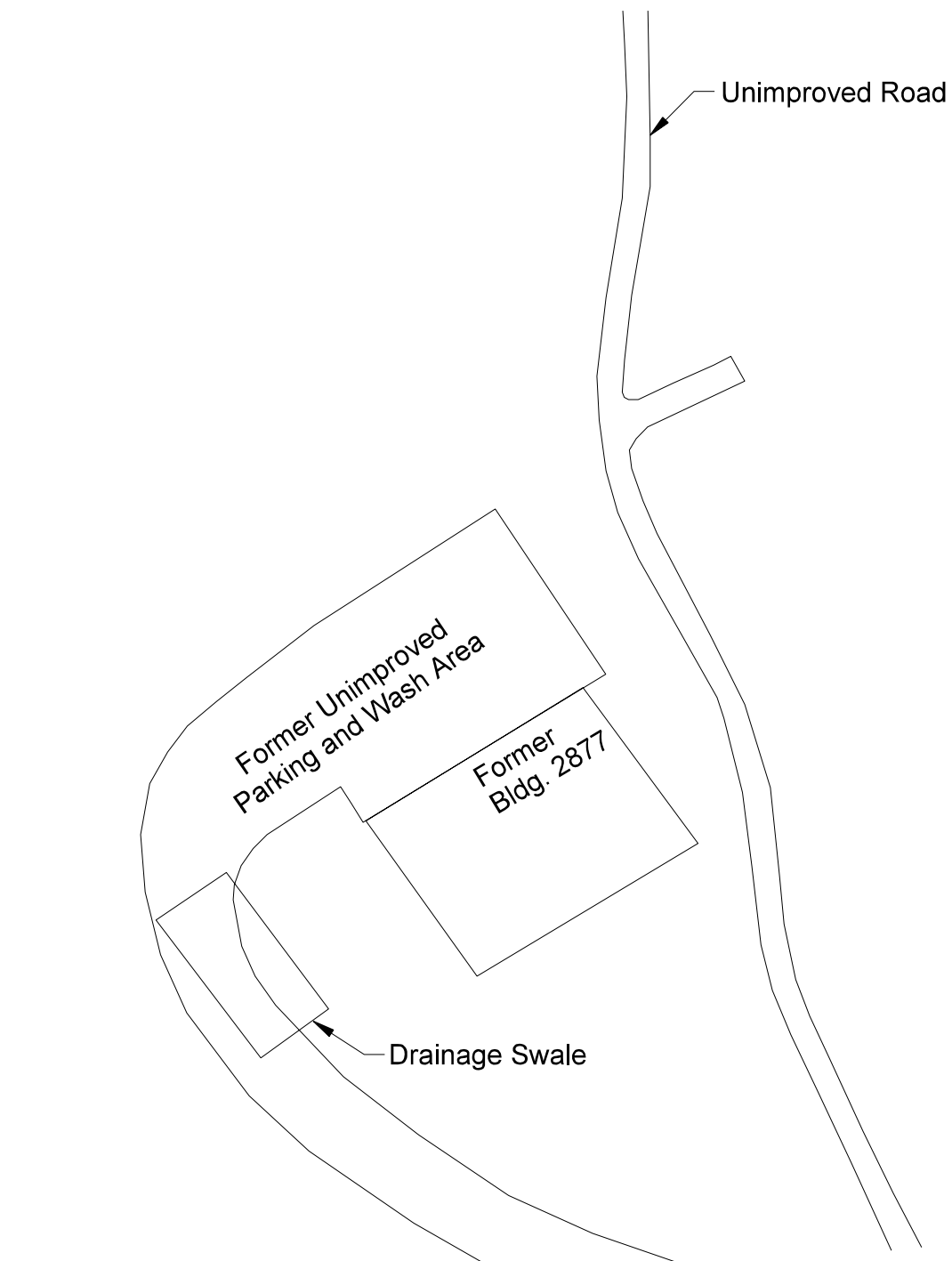


FIGURE 1-7

Site Plan for Site 38

Project Completion Report, NAS Whiting Field

In March 1996, during the Navy's relative risk ranking for the site, Brown & Root Environmental Services, Inc., collected a single surface soil sample (0- to 1-foot sample depth) at Site 38. The soil sample was analyzed for the target compound list (TCL) VOCs, SVOCs, pesticides, PCBs, and TAL inorganic compounds. No organic compounds were detected above analytical method detection limits.

In May 2000, TtNUS collected 19 surface soil samples (38SS01 through 38SS19) and 10 subsurface soil samples (38SB10 through 38SB19) during the Preliminary Assessment/ Site Investigation (PA/SI) of Site 38 (TtNUS, 2002). Surface soil samples were collected from 0 to 1 feet bls. All subsurface soil samples were collected at a depth interval of 9 to 11 feet bls, except for the 38SB13 sample, which was collected at a depth of 8 to 10 feet bls. The subsurface soil samples exhibited concentrations of various metals. Except for vanadium, all concentrations were below the associated USEPA Region IX PRGs and FDEP residential and industrial SCTLs from Chapter 62-777, FAC. At sample locations 38SB10 (9 to 11 feet bls) and 38SB13 (8 to 10 feet bls), vanadium levels were above the FDEP residential direct exposure criteria but below industrial direct exposure levels.

The surface soil samples exhibited concentrations of various pesticides, metals, and TRPH. USEPA Region IV Risk Assessment Guidance Recommended Ecological Screening Values (ESVs) were exceeded in six locations. However, two samples, 38SS11 and 38SS12, exceeded FDEP SCTLs for residential direct exposure, FDEP leachability standards, or USEPA Region IX residential PRGs.

Surface soil sample 38SS11/38SS11D exhibited pesticide concentrations of 4,4'-dichlorodiphenyldichloroethylene (DDE) and 4,4'-dichlorodiphenyltrichloroethane (DDT) above the USEPA Region IV recommended ESVs, and alpha-chlordane, gamma-chlordane, and heptachlor epoxide above the FDEP SCTLs and USEPA Region IX PRGs for residential direct exposure. TRPH concentrations in sample 38SS11D also exceeded FDEP leachability and direct exposure residential standards.

Surface soil sample 38SS12 exhibited concentrations of 4,4'-DDE, 4,4'-DDT, and dieldrin above USEPA Region IV ESVs and concentrations of dieldrin and heptachlor epoxide above the Region IX PRG residential standard. Surface soil samples 38SS13, 38SS14, 38SS15, and 38SS16 were collected following the 38SS11/38SS11D and 38SS12 sampling event. These sample results did not exceed regulatory guidelines.

According to TtNUS, risk assessments have been performed and it has been determined that ESV exceedances do not pose an ecological risk. Therefore, sample locations with only ESV exceedances were not investigated further. A summary of the risk assessment is provided in TtNUS's Assessment Report for Sites 5A, 07, 29, 35, 38 and PSC1485C (TtNUS, 2002).

On August 10, 2001, CCI personnel collected surface soil samples at Site 38 to delineate the extent of the COCs, which include pesticide and TRPH constituents in surface soil in the vicinity of PA/SI samples 38SS11 and 38SS12. Seven surface soil samples and associated QA/QC samples were collected in the vicinities of PA/SI samples 38SS11 and 38SS12. Four samples were collected in the vicinity of sample 38SS11, and three samples were collected in the vicinity of sample 38SS12. Analytical results were compared to the USEPA Region IX PRGs and the FDEP SCTLs. Figures 1-8 and 1-9 detail the location and results of the delineation samples taken from former sample locations 38SS11 and 38SS12, respectively.

LEGEND

RI surface soil sample (0-1') and additional subsurface soil sample (2'-3') and designation (May 2000 and September 2001, respectively) 38SS11 ▲

Additional grid surface soil sample (0-2') and designation (August 2001) 38SS20 ●

Notes:

1. All units are mg/kg.
2. TRPH = Total Recoverable Petroleum Hydrocarbons
3. The applicable residential/industrial soil criteria for Site 38 are:

	EPA PRG	FDEP SCTL	EPA ESV
alpha-Chlordane	1.6/11	3.1/12	NA
gamma-Chlordane	1.6/11	3.1/12	NA
4,4'-DDE	1.7/12	3.3/13	0.0025
4,4'-DDT	1.7/12	3.3/13	0.0025
Heptachlor Epoxide	0.053/0.27	0.1/0.4	NA
TRPH	NA/NA	340/2500	NA

4. PRG = EPA Region IX Preliminary Remedial Goal

5. SCTL = Soil Cleanup Target Level

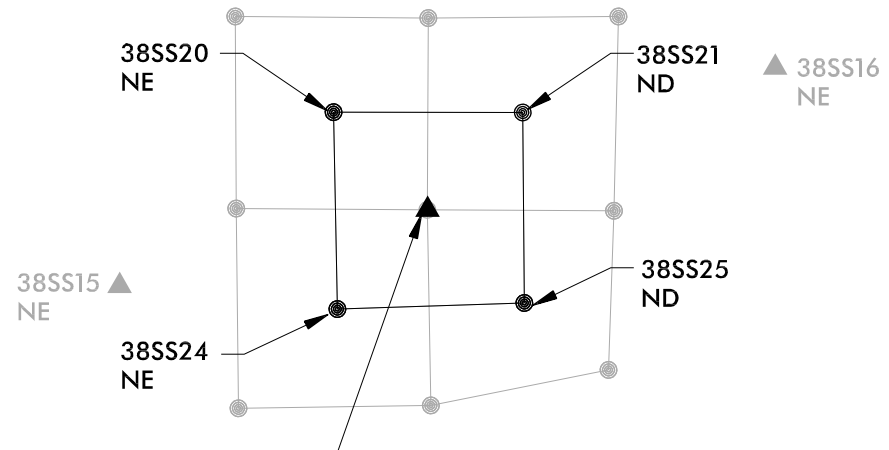
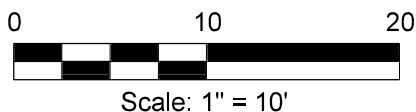
6. ESV = EPA Region IV Recommended Ecological Screening Value

7. NA = Not Available

8. NE = No exceedance of applicable criteria

9. ND = Non-detect

10. J = Estimated Value



38SS11 (0-1') (May 2000)	
alpha-Chlordane	5.72 J
gamma-Chlordane	4.55
4,4'-DDE	0.446 J
4,4'-DDT	0.517 J
38SS11D (0-1') (May 2000)	
alpha-Chlordane	5.46 J
gamma-Chlordane	4.26
4,4'-DDE	0.402 J
4,4'-DDT	0.468 J
Heptachlor Epoxide	0.194 J
TRPH	479
38SO11 (2'-3') (September 2001)	
TRPH	ND
alpha-Chlordane	NE
gamma-Chlordane	NE
Heptachlor Epoxide	NE

FIGURE 1-8

Surface Soil Sample Exceedances
Grid for 38SS11 at Site 38

Project Completion Report, NAS Whiting Field

LEGEND

RI surface soil sample (0-1') and additional subsurface soil sample (2'-3') and designation (May 2000 and September 2001, respectively) 38SS12 ▲

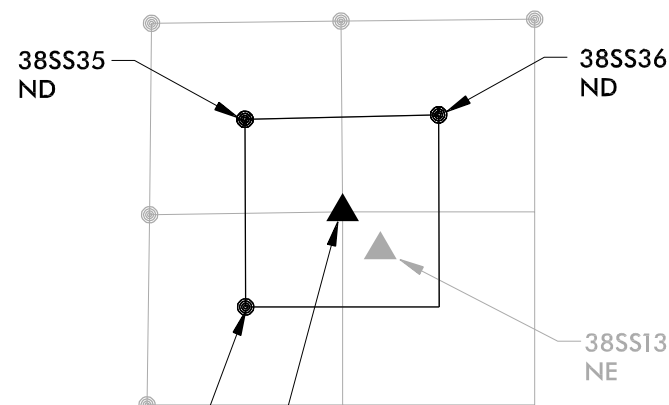
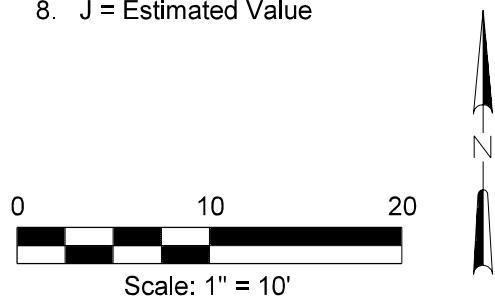
Additional grid surface soil sample (0-2') and designation (August 2001) 38SS35 ●

Notes:

1. All units are mg/kg.
2. The applicable residential/industrial soil criteria for Site 38 are:

	EPA PRG	FDEP SCTL	EPA ESV
4,4'-DDE	1.7/12	3.3/13	0.0025
4,4'-DDT	1.7/12	3.3/13	0.0025
Dieldrin	0.03/0.15	0.07/0.3	0.0005
Heptachlor Epoxide	0.053/0.27	0.1/0.4	NA

3. PRG = EPA Region IX Preliminary Remedial Goal
4. SCTL = Soil Cleanup Target Level
5. ESV = EPA Region IV Recommended Ecological Screening Value
6. NE = No exceedance of applicable criteria
7. ND = Non-detect
8. J = Estimated Value



38SS38 (0-2') (August 2001)	
Dieldrin	0.00085 J

38SS12 (0-1') (May 2000)	
4,4'-DDE	0.148
4,4'-DDT	0.116 J
Dieldrin	0.035 J
Heptachlor Epoxide	0.097
38SS12 (2'-3') (September 2001)	
Dieldrin	ND
Heptachlor Epoxide	ND

FIGURE 1-9
Surface Soil Sample Exceedances
Grid for 38SS12 at Site 38

Project Completion Report, NAS Whiting Field

Figures of the grid layouts for Site 38 are included in Work Plan Addendum No. 3, Interim Removal Action Work Plan at Sites 6, 16, and 38.

Based on the results of the May 2000 PA/SI and the delineation completed in the August and September 2001 investigations, it was recommended that one area measuring approximately 10 by 10 feet and 2 feet deep, and one irregularly shaped area measuring 10 by 10 feet on two sides and 7.5 by 7.5 feet on two sides and 2 feet deep, be excavated from the immediate vicinity of samples 38SS11 and 38SS12. The total combined volume recommended for excavation from the two areas was approximately 13 cubic yards. Details are provided in CCI's Data Transfer Memorandum, Results of Additional Soil Sampling at Site 38 (CCI, 2001d).

1.3 Remedial Action Objective

The objective of the remedial activities was to perform excavation of soil exceeding residential cleanup goals for benzo(a)pyrene and TRPH at Site 6, industrial cleanup goals for PAHs at Site 16, and residential cleanup goals for pesticides and TRPH at Site 38. Table 1-1 presents the remedial goals for each site.

TABLE 1-1
Soil Remedial Goals

Site	Contaminant	Soil Remedial Goal
Site 6	Benzo(a)pyrene	290 µg/kg (USEPA Region IX PRG - industrial)
	TRPH	340 mg/kg (FDEP SCTL – residential/leachability)
Site 16	Benzo(a)pyrene	290 µg/kg (USEPA Region IX PRG - industrial)
	Dibenz(a,h)anthracene	290 µg/kg (USEPA Region IX PRG - industrial)
Site 38	Alpha Chlordane	1,600 µg/kg (USEPA Region IX PRG - residential)
	Dieldrin	30 µg/kg (USEPA Region IX PRG - residential)
	Gamma Chlordane	1,600 µg/kg (USEPA Region IX PRG - residential)
	Heptachlor Epoxide	53 µg/kg (USEPA Region IX PRG - residential)
	TRPH	340 mg/kg (FDEP SCTL – residential/leachability)

TRPH = total recoverable petroleum hydrocarbons

µg/kg = micrograms per kilogram

mg/kg = milligrams per kilogram

USEPA = U.S. Environmental Protection Agency

PRG = preliminary remediation goal

FDEP = Florida Department of Environmental Protection

SCTL = soil cleanup target level

1.4 Regulatory Framework

The sampling and interim removal actions were performed under the guidelines set forth by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Excavation limits were selected by comparing the analytical results to Florida SCTLs specified in Chapter 62-777 FAC and USEPA Region IX PRGs.

2.0 Significant Events

2.1 Chronology of Events

The chronology of events for the remediation activities at Sites 6, 16, and 38 is included in Table 2-1. Specific details describing the remediation activities are included in Sections 3.0 and 4.0 of this report.

TABLE 2-1
Chronology of Events

Event	Start Date
Excavation Permit started	01-May-02
Mobilization	01-May-02
Cleared Site 16	08-May-02
Began excavation, transport, and disposal at Site 16	09-May-02
Soil Removal and load-out at Site 38	13-May-02
Completed Site 38 Restoration	14-May-02
Completed excavation at Site 16	14-May-02
Inspection Site 38 (Jim Holland)	14-May-02
Soil removal, transport, and disposal at Site 6	15-May-02
Began Site 6 Restoration	15-May-02
Began backfill of excavation area Site 16	16-May-02
Completed Sites 6 & 38 Restoration	17-May-02
Final cleanup, fertilization and grading of Site 16	17-May-02
Completed Site 16 Restoration	17-May-02
Inspection Sites 6 and 16 (Jim Holland)	23-May-02
Subcontractor Demobilization	23-May-02
Dispose of liquid wastes at NASWF Water Treatment Facility	01-July-02

2.2 Scope of Work Variances

One variance and/or differing site conditions in the scope of work was encountered. Pre-excavation and post-excavation surveys were scheduled in the work plan. However, the areas excavated were the same as the areas surveyed prior to field work (as marked by survey stakes); therefore, the post-excavation survey was not performed.

2.3 Safety Implementation

During the 23-day duration of the excavation portion of the project, approximately 360 personnel hours were worked onsite by CCI and subcontractors with no first aid, property damage, or loss-time incidents.

3.0 Removal Action Activities

3.1 Removal Action Participants

The remedial action participants and their respective responsibilities for CTO No. 0011 activities are shown in Figure 3-1.

3.2 Summary of Removal Action Activities

This project consisted of three different site locations at NAS Whiting Field. Although they are three separate sites, the activities were similar and some tasks were carried out simultaneously. For the purposes of this report, the major activities at the sites are addressed concurrently. Excavation areas are shown in Figure 3-2 (Site 6), Figure 3-3 (Site 16), and Figure 3-4 (Site 38). Appendix A presents the survey report for the points surveyed prior to excavation.

Wastestream quantities and disposal facilities for the three sites are listed in Table 3-1. Appendix B includes the Testing Plan and Log for soil confirmation, characterization, and disposal sampling. Laboratory data are also included in the appendices and are referenced in the corresponding sections of this report.

TABLE 3-1
Wastestream Quantities and Disposal Facilities

Site	Non-Haz Waste	Material	Quantity Disposed	Disposal Facility
6	Solids	Soil	37 cubic yds/ 52.17 tons	Springhill Landfill
16	Solids	Soil and Debris	67 cubic yds/ 95.37 tons	Springhill Landfill
38	Solids	Soil	15 cubic yds/ 18.21 tons	Springhill Landfill
6, 16, & 38	Decontamination liquid	Liquid	120 gallons	NAS Whiting Field Wastewater Treatment Plant

Note:

Several yards of soil from Site 16 were loaded into one of the transport vehicles from Site 6.

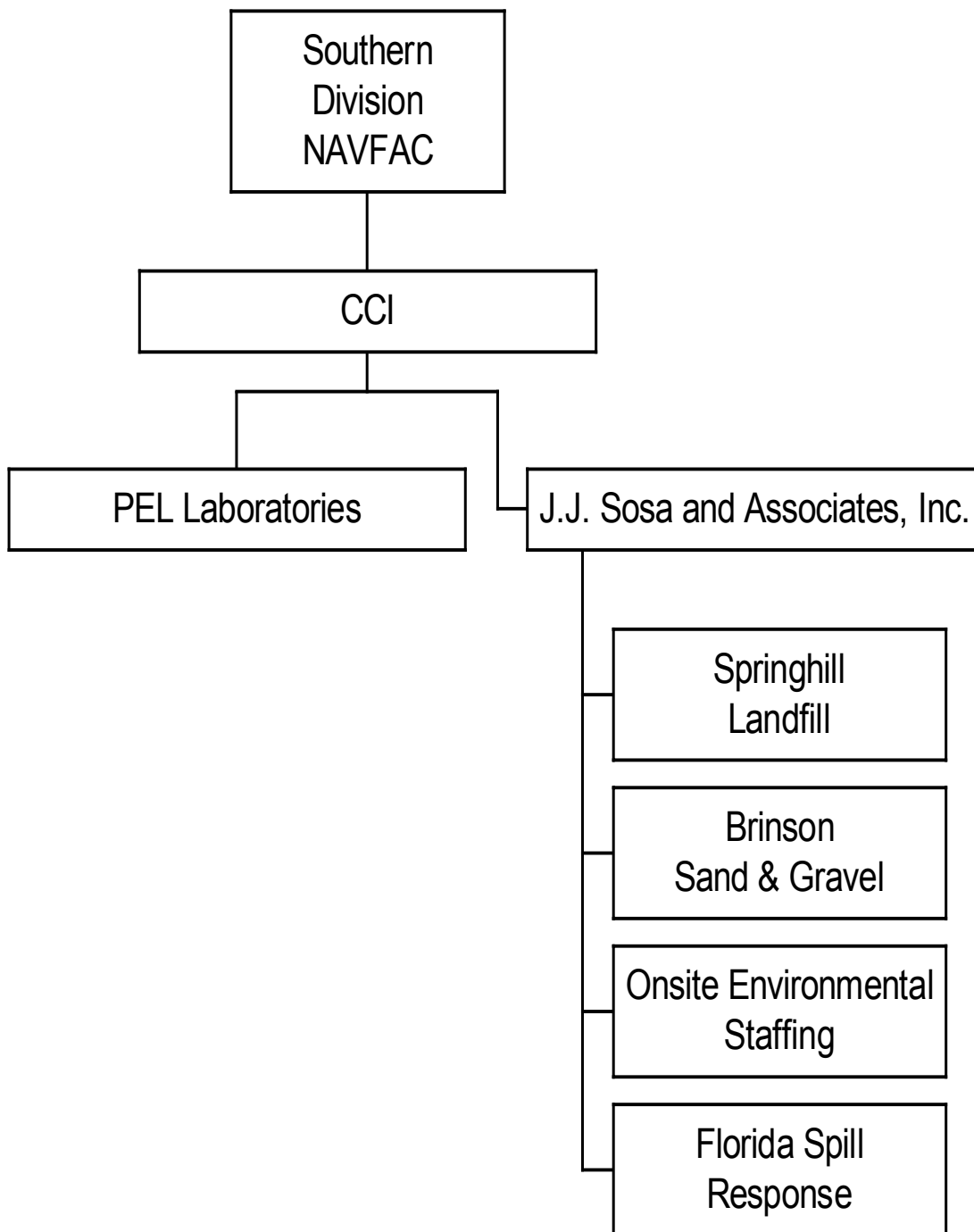


FIGURE 3-1
Organization of Remedial Action Participants

LEGEND

Phase IIA soil sample and designation ▲ 6SB01
Additional grid soil sample •

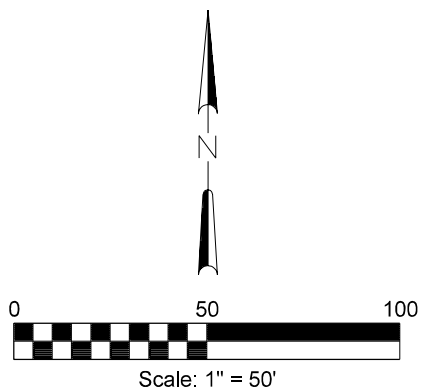
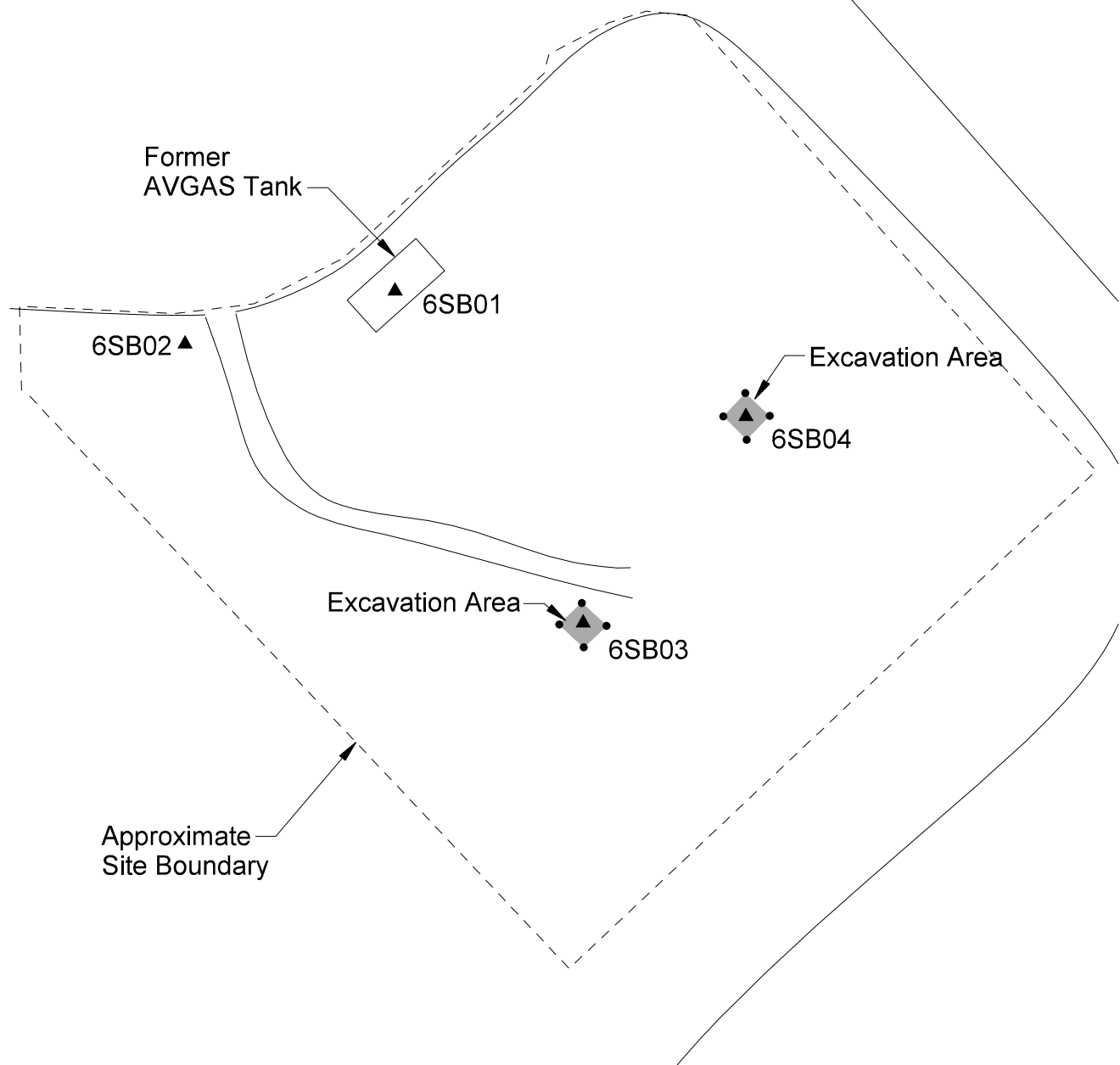


FIGURE 3-2

Excavation Area for Site 6

Project Completion Report, NAS Whiting Field

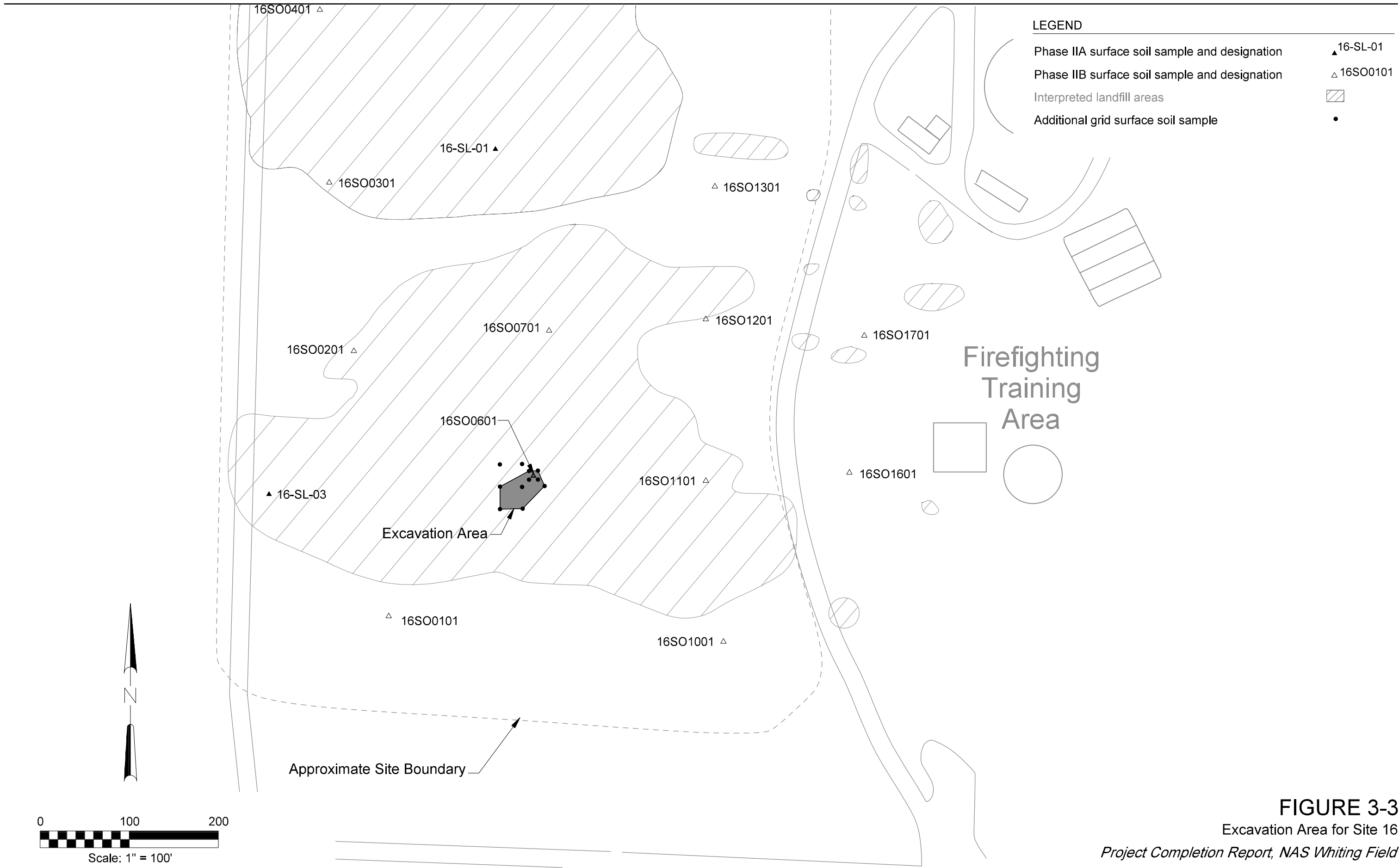


FIGURE 3-3

Excavation Area for Site 16

Project Completion Report, NAS Whiting Field

LEGEND

RI soil sample and designation ▲ 38SS01

Additional grid surface soil sample •

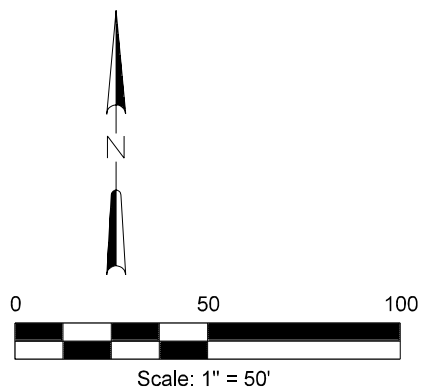
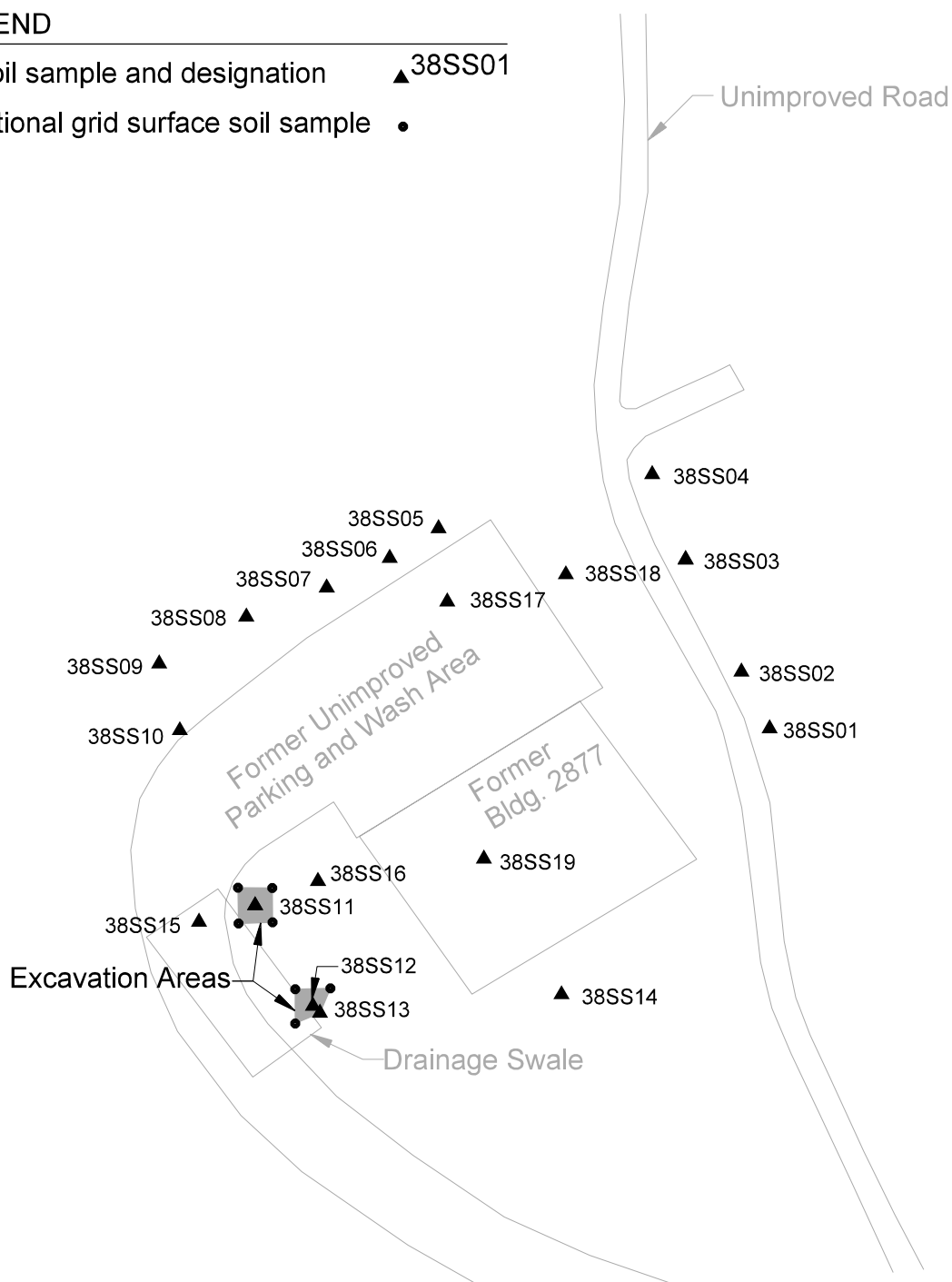


FIGURE 3-4

Excavation Area for Site 38

Project Completion Report, NAS Whiting Field

3.2.1 Soil Excavation

The intent of the excavations was to remove contaminated soil exceeding the associated soil cleanup criteria (Section 1.3) at each of the three sites. The excavated soil from Sites 6 and 38 was loaded directly into the transport vehicles as it was being excavated. Soil excavated from Site 16 was stockpiled onto poly sheeting and upon completion of excavation, transferred to the transport vehicles for transport and disposal. The soil was transported to the Springhill Landfill. Disposable poly sheeting was spread in the area where the transport vehicles were being loaded to prevent migration of contaminants. Once either the transport vehicle was full or the excavation was complete, the poly sheeting was folded and placed in the vehicle with the soil. Excavation activities are described in the following sections.

3.2.1.1 Site 6

Based on the exceedances of benzo(a)pyrene and TRPH (both above industrial SCTLs) found during the RI activities and the delineation established by the most recent investigations of Site 6, an area measuring 10 by 10 feet and approximately 5 feet deep was excavated in each of the former Phase IIA sample locations 6SB03 and 6SB04. The combined soil volume from the two areas excavated was approximately 37 cubic yards (approximately 52.7 tons). The last transport vehicle for Site 6 was not completely full and was topped off with soil from Site 16. Because the extent of the excavation both vertically and horizontally was predetermined, no confirmation samples were collected from the sidewalls or bottom of the excavation at Site 6. Figure 3-2 presents the excavation areas.

3.2.1.2 Site 16

Based on the results of the RI and the additional soil investigation of Site 16, PAH contamination above industrial criteria extended over an area measuring 45 by 20 feet and approximately 2 feet deep around former Phase IIB sample location 16SO0601. The total volume excavated was approximately 67 cubic yards (approximately 95.37 tons). To determine the soil concentrations left in the subsurface soil beneath the excavation, two samples were collected from 2 to 2.5 feet bls. Section 3.2.2 describes the sampling and analysis. Figure 3-3 presents the excavation of Site 16.

3.2.1.3 Site 38

Based on the results of the May 2000 PA/SI, and the delineation completed during the August and September 2001 investigations of Site 38, two areas above residential criteria for pesticides and TRPH. Two areas were excavated from the immediate vicinity of sample locations 38SS11 and 38SS12—one area measuring approximately 10 by 10 feet and 2 feet deep; and one irregular area measuring approximately 10 by 10 feet on two sides and 7.5 by 7.5 feet on two sides and 2 feet deep. The total combined volume excavated from the two areas was approximately 15 cubic yards. Because the extent of the excavation both vertically and horizontally has been determined, no confirmation samples were collected from the sidewalls or bottom of the excavation at Site 38. Figure 3-4 presents the excavation areas of Site 38.

3.2.2 Sampling and Analysis

Excavation areas were pre-determined and described in the Interim Removal Action Work Plan at Sites 6, 16, and 38 (CCI, 2001a). Post-excavation sampling and analysis were not performed at Sites 6 and 38; however, two samples were collected at Site 16. Analytical data acquired in support of activities documented in this report included the following:

- Analysis of nearby barrow pit soil to determine if it was suitable for backfill
- Analysis of two subsurface soil samples at Site 16
- Waste characterization of soil for disposal (Appendix C)
- Analysis of decontamination liquid prior to disposal (Appendix C)

3.2.2.1 Backfill Material Analysis

A nearby barrow pit was sampled on March 4, 2002, and analyzed for a full suite of parameters to determine if it was suitable for backfill. Analyses included VOCs (USEPA SW 846 Method 8260B), SVOCs (USEPA SW 846 Method 8270C), TAL metals (USEPA SW 846 Methods 6010B and 7471), TRPH (Florida Residual Petroleum Organic [FL-PRO] methodology), PCBs (USEPA SW 846 Method 8082), and pesticides and herbicides (USEPA SW 846 Methods 8081A and 8151A). Backfill soil analytical results were compared to the SCTLs for direct exposure, residential listed in Chapter 62-777 FAC. Vanadium was detected at 16 mg/kg and slightly exceeded the residential SCTL of 15 mg/kg. Due to the impending increase of the soil criteria for vanadium by the State of Florida, the excavation was backfilled and leveled to grade. Analytical results of the backfill material are included in Appendix D. This backfill was used for all three sites.

3.2.2.2 Site 16 Post-Excavation Confirmation Sampling

Prior to completing the backfill at Site 16, two subsurface soil samples were collected at the bottom of the excavation area and analyzed for PAHs by SW 846 Method 8310 to determine the levels of contamination remaining in the subsurface soil. The results for the two subsurface samples are summarized in Table 3-2. No TAL compounds were detected above the leachability criteria for subsurface soil, but PAHs were detected in both samples. A copy of the laboratory report is included in Appendix E. The data were third-party validated by E-Data; the validation report is included in Appendix F.

TABLE 3-2

Post Excavation Analytical Summary Results for Confirmational Samples at Site 16

Laboratory Analyses	011-16-CS-S-01 2-3 feet bls Soil	011-16-CS-S-02 2-3 feet bls Soil	62-777 FAC Leachability
Naphthalene	0.0067 U	0.0066 U	1.7
Acenaphthylene	0.0067 U	0.0066 U	27
1-Methyl naphthalene	0.0067 U	0.0066 U	2.2
2-Methyl naphthalene	0.0067 U	0.0066 U	6.1
Acenaphthene	0.0067 U	0.0066 U	2.1
Fluorene	0.0067 U	0.0066 U	160

TABLE 3-2

Post Excavation Analytical Summary Results for Confirmational Samples at Site 16

Laboratory Analyses	011-16-CS-S-01 2-3 feet bls Soil	011-16-CS-S-02 2-3 feet bls Soil	62-777 FAC Leachability
Phenanthrene	0.0097	0.0066 U	250
Anthracene	0.0067 U	0.0004 J	2500
Fluoranthene	0.0404	0.112	1200
Pyrene	0.0184	0.0861	880
Benzo(a)anthracene	0.0179	0.0367	3.2
Chrysene	0.0162	0.043	77
Benzo(b)fluoranthene	0.0183	0.0617	10
Benzo(k)fluoranthene	0.0065 J	0.0273	25
Benzo(a)pyrene	0.137	0.169	8
Dibenz(a,h)anthracene	0.0067 U	0.0238	30
Benzo(g,h,i)perylene	0.0221	0.0637	32000
Indeno(1,2,3-cd)pyrene	0.0151	0.0703	28

U = undetected

J = estimated

bls = below land surface

All values reported in milligrams per kilogram (mg/kg).

3.2.2.3 Waste Characterization of Soil for Disposal

Samples were collected at Sites 6, 16, and 38 at depths of 0 to 5, 0 to 2 and 0 to 2 feet, respectively, on December 4, 2001, to develop a disposal profile.

Analyses included toxicity characteristic leaching procedure (TCLP) VOCs (USEPA SW 846 Methods 1311 and 8260B), TCLP SVOCs (USEPA SW 846 Methods 1311 and 8270C), TCLP pesticides (USEPA SW 846 Methods 1311 and 8081A), TCLP herbicides (USEPA SW 846 Methods 1311 and 8151A), TCLP metals (USEPA SW 846 Methods 1311, 6010B and 7471), TRPH (FL-PRO methodology), PCBs (USEPA SW 846 Method 8082), corrosivity (USEPA SW 846 Methods 9045C), reactivity (USEPA SW 846, Chapter 7.3), and ignitability (USEPA Method 1030). The laboratory report is included in Appendix C. Results indicated that the soil was nonhazardous. A disposal profile submitted and approved and the soil was transported to the Springhill Regional Landfill in Campbellton, Florida. The Transportation and Disposal Log and manifests, weigh tickets, and certificates of disposal are provided in Appendices I and J, respectively.

3.2.2.4 Waste Characterization of Decontamination Liquid

The decontamination-generated fluids were placed into 55-gallon drums and sampled after the field work was complete. Analyses included VOCs (SW 846 Method 8260B), SVOCs (USEPA SW 846 Method 8270C), pesticides (USEPA SW 846 Method 8081A), herbicides

(USEPA SW 846 Method 8151A), TAL metals (USEPA SW 846 Methods 6010B and 7470), TRPH (FL-PRO method), corrosivity (USEPA SW 846 Methods 9045C), reactivity (USEPA SW 846, Chapter 7.3), and ignitability (USEPA Method 1030). The laboratory report is included in Appendix C. Results indicated that the decontamination water is nonhazardous and was disposed at the NAS Whiting Field Wastewater Treatment Plant on July 1, 2002.

3.2.3 Data Quality Evaluation

Two soil samples were collected at Site 16, NAS Whiting Field, Milton, Florida, on May 10, 2002. Field QC samples including equipment rinsate blanks and matrix spike/matrix spike duplicate (MS/MSD) pairs were submitted to PEL Laboratories, Tampa, Florida. The data were validated by E-Data, Inc., of Wauwatosa, Wisconsin. The full data quality evaluation (DQE) report is included in Appendix F.

3.2.4 Site Restoration

All three sites were restored pursuant to Work Plan Addendum No. 03, Interim Removal Action at Sites 6, 16, and 38, NAS Whiting Field, (CCI, 2001a). Clean soil was brought in from an offsite, on-base source. Analytical results for the backfill are presented in Appendix D. Loose soil was placed in each excavation and compacted with three passes using heavy equipment.

At Sites 6 and 38, the excavation was backfilled to the same elevation as the surrounding surface, covered with sod, and then fertilized. At Site 16, the excavation was backfilled to the same elevation as the surrounding surface and fertilized. No sod was placed at Site 16 because of its remote, wooded location.

4.0 Performance Standards and Construction Quality Control

The following QCs were implemented during the course of the project and are described in this section:

- Field observation
- Excavation control
- Excavation backfill
- Waste disposal
- Site restoration
- Equipment decontamination

4.1 Field Observation

CCI provided project oversight of all field operations throughout the project. CCI field oversight staff included a Site Superintendent/Site Health and Safety Specialist and a Project QC Manager. The QC records for this project are included in Appendix G. Detailed records of project activities were maintained in the site field records. Photographs of all site activities were collected throughout the project and are included in Appendix H.

4.2 Excavation Control

The objective of the limited excavations was to remove contaminated soil exceeding industrial standards. Excavation areas were demarcated by survey flags (at the previously determined horizontal excavation limits) and the perimeter marked by spray paint. The vertical depths of the excavations were measured by the CCI Site Superintendent using standard means. As the soil at Sites 6 and 38 was being excavated, it was loaded directly into the transport vehicles for disposal. The soil at Site 16 was stockpiled until excavation was complete. Soil quantities were calculated based on standard volume measurements (length by width by height) and verified by tonnage and a soil bulk density of 1.4 tons per cubic yard.

4.3 Excavation Backfill

A barrow source was located on base by NAS Whiting Field personnel. The barrow source was sampled prior to use. Analytical results of the backfill material are described in Section 3.2.2.1 and presented in Appendix D.

The excavated areas at Sites 6 and 38 were backfilled in 12-inch loose lifts immediately (on the same day) after excavation was complete. Site 16 was excavated over a period of 7 days and the bottom of the excavation was sampled prior to backfilling. After backfilling was complete, backfill material was compacted with three passes using heavy equipment.

4.4 Waste Disposal

4.4.1 Soil

All of the soil and debris excavated at NAS Whiting Field Sites 6, 16, and 38 were either transferred to transport vehicles or stockpiled until excavation complete, then transferred to transport vehicles. All soil was designated as nonhazardous, manifested, and shipped to the Waste Management lined, Subtitle D Springhill Regional Landfill facility in Campbellton, Florida. The Transportation and Disposal (T&D) Log and waste manifests, certified weigh tickets, and disposal certificates are included in Appendices I and J, respectively.

4.4.2 Liquid

The decontamination-generated fluids were placed into 55-gallon drums. NAS Whiting Field personnel received approval to dispose the liquid into the base sewer treatment system. The liquid was disposed on July 1, 2002.

4.5 Site Restoration

Once the backfilling operations were complete at Sites 6 and 38, the areas were graded for drainage consistent with the surrounding area and sodded with centipede grass. To provide adequate nutrient, fertilizer was applied to the newly installed centipede sod. The minor gaps between the sod flats were filled with sand. After backfilling was complete at Site 16, fertilizer was applied to the surface soil. No sod was placed on the surface soil at Site 16 because of its remote, wooded location.

4.6 Equipment Decontamination

All equipment used during the project that came into or potentially came into direct contact with contaminated soil contents was decontaminated in accordance with decontamination procedures as specified in the Work Plan Addendum (CCI, 2000). Decontamination was accomplished using either dry methods or a pressure washer, with the appropriate method being determined by the extent of contamination. All decontamination-generated fluids were placed into containers, sampled and disposed into the NAS Whiting Field water treatment facility on July 1, 2002.

4.7 Surveying

The sample nodes at each site were surveyed at the sites prior to excavating by a State of Florida registered land surveyor. The sample points were flagged prior to excavation activities to mark the excavation boundaries. The surveys are included in Appendix A.

4.8 Problems Encountered

During excavation at Site 38, an unmarked electrical line was found. The line was not energized, which was confirmed on May 13, 2002, by PRI/DJI personnel, the NAS Whiting Field electrical contractor. The line was cut during excavation and the length of line within the excavation area was removed. The line beyond the excavation limits was left in place.

5.0 Final Inspection

A final inspection of Site 6 was conducted on May 15, 2002. Final inspections of Sites 16 and 38 were conducted on May 23, 2002. NAS Whiting Field Public Works Representative Mr. Jim Holland performed all three inspections. No deficiencies were noted during the final inspections.

6.0 Conclusions

1. Approximately 37 cubic yards (52.17 tons) of nonhazardous soil above industrial and/or leachability criteria were removed from Site 6.
2. Approximately 67 cubic yards (95.37 tons) of nonhazardous soil above industrial criteria were removed from Site 16. The site still contains landfill debris throughout and some soil exceeding residential criteria.
3. Approximately 15 cubic yards (18.21 tons) of nonhazardous soil above residential and/or leachability criteria were removed from Site 38.
4. The excavated soil was transported offsite and disposed at the Springhill Landfill.
5. The sites were restored to their pre-construction surface grade and cover condition and after the final inspection were accepted by the Navy.
6. The removal actions at these sites achieved their objectives (Section 1.3) and were conducted in accordance with regulatory standards.

7.0 References

- CH2M HILL Constructors, Inc. 2001a. *Work Plan Addendum No. 03, Interim Removal Action at Sites 6, 16 and 38, NAS Whiting Field, Milton, Florida.*
- CH2M HILL Constructors, Inc. 2001b. *Data Transfer Memorandum, Additional Soil Sampling at Site 6, Revision 01, NAS Whiting Field, Milton, Florida.* December 2001.
- CH2M HILL Constructors, Inc. 2001c. *Data Transfer Memorandum, Additional Soil Sampling at Site 16, Revision 01, NAS Whiting Field, Milton, Florida.* December 2001.
- CH2M HILL Constructors, Inc. 2001d. *Data Transfer Memorandum, Additional Soil Sampling at Site 38, Revision 00, NAS Whiting Field, Milton, Florida.* November 2001.
- CH2M HILL Constructors, Inc. 2001e. *Soil Sampling and Analysis Plan, Site 38 - Former Golf Course Maintenance Building 2877, NAS Whiting Field, Milton, Florida.*
- CH2M HILL Constructors, Inc. 1999. *Basewide Work Plan, NAS Whiting Field, Milton, Florida.*
- Florida Department of Environmental Protection. April 11, 2001. *Letter RE: Analysis of Soil for Arsenic at Outlying Landing Fields.*
- Geraghty & Miller. 1986. *Verification Study. NAS Whiting Field, Milton, Florida.*
- Harding Lawson Associates. March 2001. *Feasibility Study Report, Site 16 Open Disposal and Burning Area, Naval Air Station Whiting Field, Milton, Florida.*
- Harding Lawson Associates. January 2000. *Remedial Investigation Report, Site 16, Open Disposal and Burning Area, Naval Air Station Whiting Field, Milton, Florida.*
- Tetra Tech NUS, Inc. January 2002. *Draft Assessment Report for Sites 5A, 07, 29, 35, 38 and PSC1485C, Naval Air Station Whiting Field, Milton, Florida*
- Tetra Tech NUS, Inc. March 2001. *Feasibility Study for Surface and Subsurface Soil at Sites 3, 4, 6, 30, 32 and 33, Naval Air Station Whiting Field, Milton, Florida.*
- Tetra Tech NUS, Inc. January 2000. *Remedial Investigation and Feasibility Study Work Plan for Sites 5, 7, 29, 35, 38, 39, 40 and PSC 1485C, Naval Air Station Whiting Field, Milton Florida.*
- Tetra Tech NUS, Inc. September 1999. *Remedial Investigation Report for Surface and Subsurface Soil Sites 3, 4, 6, 30, 32 and 33, Naval Air Station Whiting Field, Milton, Florida.*
- U.S. Environmental Protection Agency. May 1996. *EPA Region IV Environmental Investigation Standard Operating Procedures and Quality Assurance Manual.*

Appendix A

Survey Data

APPENDIX A1
Survey Data
Site 6, NAS Whiting Field

*Note: Horizontal Datum is NAD (North American Datum) 83 (1990) SPC Fl. N. US Survey Ft.
 Vertical Datum is NAVD (North American Vertical Datum) 88.*

Description	North Coordinate (feet NAD)	East Coordinate (feet NAD)	Ground Elevation (feet NAVD)
<u>Survey Control Points :</u>			
601 (Re Bar & Cap)	629779.1185	1177628.9593	186.01
602 (Re Bar & Cap)	629654.2418	1178125.1167	179.17
5000 (most westerly elevated tank)	631519.1265	1177642.1999	----

Description	North Coordinate (feet NAD)	East Coordinate (feet NAD)	Ground Elevation (feet NAVD)	Description	North Coordinate (feet NAD)	East Coordinate (feet NAD)	Ground Elevation (feet NAVD)
<u>Grid 6SB03 :</u>				<u>Grid 6SB04 :</u>			
6SB03	629566.27	1178117.53	174.1	6SB04	629630.09	1178167.24	173.9
6SS05	629619.33	1178117.01	178.3	6SS28	629682.97	1178166.89	178.7
6SS06	629601.83	1178134.78	176.0	6SS29	629665.48	1178184.49	176.3
6SS07	629584.37	1178152.61	176.2	6SS30	629647.84	1178202.60	176.4
6SS08	629566.94	1178170.39	177.7	6SS31	629630.30	1178220.51	177.3
6SS09	629601.93	1178099.40	177.7	6SS32	629665.35	1178149.42	178.7
6SS10	629584.20	1178117.60	175.6	6SS33	629647.69	1178166.97	176.6
6SS11	629566.35	1178135.12	176.3	6SS34	629630.24	1178184.94	175.4
6SS12	629549.00	1178152.93	177.6	6SS35	629612.64	1178202.68	177.0
6SS13	629566.26	1178124.70	175.1	6SS36	629637.05	1178167.13	174.5
6SS14	629559.65	1178117.74	175.4	6SS37	629630.10	1178174.60	174.0
6SS15	629573.20	1178117.17	174.9	6SS38	629629.90	1178160.42	174.8
6SS16	629566.63	1178110.32	175.0	6SS39	629622.81	1178167.51	174.1
6SS17	629584.55	1178082.12	178.1	6SS40	629647.96	1178132.07	178.8
6SS18	629566.64	1178099.69	176.5	6SS41	629630.04	1178149.60	177.2
6SS19	629548.67	1178117.43	176.3	6SS42	629612.24	1178167.11	174.9
6SS20	629531.12	1178135.42	177.5	6SS43	629594.90	1178184.74	177.0
6SS21	629566.77	1178064.33	178.2	6SS44	629630.25	1178114.46	179.1
6SS22	629548.87	1178082.18	176.8	6SS45	629612.72	1178131.92	177.5
6SS23	629530.94	1178099.79	176.1	6SS46	629594.79	1178149.67	174.6
6SS24	629512.97	1178117.57	177.4	6SS47	629577.12	1178167.09	177.1

PREPARED BY:

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 3011 S.W. WILLISTON ROAD
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CERTIFICATION:

I HEREBY CERTIFY THAT THIS IS AN ACCURATE REPRESENTATION OF A FIELD SURVEY MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS 36-AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

NOT VALID UNLESS SIGNED AND
 SEALED WITH EMBOSSED STAMP.

BY:

Kenneth R. Wengler
 KENNETH R. WENGLER, FL. REG. NO. 3413
 DATE OF SURVEY : August 8-9, 2001

08/14/01
 DATE

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APPENDIX A2**Survey Data****Site 16, NAS Whiting Field**

Note: Horizontal Datum is NAD (North American Datum) 83 (1990) SPC Fl. N. US Survey Ft.
Vertical Datum is NAVD (North American Vertical Datum) 88.

Description	North Coordinate (feet NAD)	East Coordinate (feet NAD)	Ground Elevation (feet NAVD)
<u>Survey Control Points :</u>			
30 (PK & Washer)	627131.17	1174297.41	87.54
50 (Re Bar & Cap)	626383.99	1173959.44	53.52
51 (1X2 Stake 16SO0601)	626316.07	1173772.72	50.17
<u>Grid 16SO0601 :</u>			
16SO1801	626353.20	1173734.70	51.5
16SO1901	626353.30	1173759.90	51.3
16SO2001	626350.90	1173784.90	51.5
16SO2101	626353.80	1173809.90	51.4
16SO2201	626329.10	1173809.90	52.0
16SO2301	626328.60	1173784.90	50.6
16SO2401	626328.60	1173759.90	51.7
16SO2501	626328.10	1173735.10	52.1
16SO2601	626303.20	1173735.30	51.9
16SO2701	626303.10	1173760.00	53.1
16SO2801	626303.90	1173785.30	52.2
16SO2901	626303.80	1173810.40	51.8
16SO3001	626279.00	1173810.50	51.0
16SO3101	626278.90	1173785.70	50.6
16SO3201	626278.50	1173760.60	50.4
16SO3301	626278.00	1173735.30	50.7
16SO3401	626320.90	1173767.80	50.9
16SO3501	626321.20	1173777.70	50.3
16SO3601	626311.20	1173777.70	50.9
16SO3701	626311.00	1173767.80	51.7

PREPARED BY:

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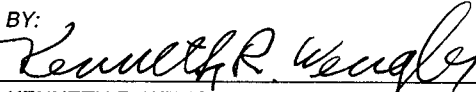
(352) 335-7991

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SEALED WITH EMBOSSED STAMP.

CERTIFICATION:

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SURVEY MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM
TECHNICAL STANDARDS 36-AS SET FORTH BY THE FLORIDA BOARD OF
PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17, FLORIDA
ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

BY:


KENNETH R. WENGLER, FL. REG. NO. 3413
DATE OF SURVEY : March 21, 2001

DATE

06/04/02

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APPENDIX A3

Survey Data

Site 38, NAS Whiting Field

Note: Horizontal Datum is NAD (North American Datum) 83 (1990) SPC Fl. N. US Survey Ft.
Vertical Datum is NAVD (North American Vertical Datum) 88.

Description	North Coordinate (feet NAD)	East Coordinate (feet NAD)	Ground Elevation (feet NAVD)
<u>Survey Control Points :</u>			
382 (PK & Washer)	635496.6192	1178589.6734	156.155
383 (Re Bar & Cap)	636740.6646	1178241.2586	174.44

Description	North Coordinate (feet NAD)	East Coordinate (feet NAD)	Ground Elevation (feet NAVD)	Description	North Coordinate (feet NAD)	East Coordinate (feet NAD)	Ground Elevation (feet NAVD)
<u>Grid 38SS11 :</u>				<u>Grid 38SS12 :</u>			
38SS11	636731.71	1178176.80	168.6	38SS12	636702.71	1178194.70	167.8
38SS17	636741.74	1178166.84	168.0	38SS32	636712.52	1178184.77	168.5
38SS18	636741.66	1178176.85	169.4	38SS33	636712.63	1178194.61	169.1
38SS19	636741.74	1178186.69	170.2	38SS34	636712.73	1178204.67	169.5
38SS20	636736.77	1178171.94	168.5	38SS35	636707.52	1178189.62	168.1
38SS21	636736.76	1178181.74	169.6	38SS36	636707.75	1178199.68	168.6
38SS22	636731.78	1178166.90	167.4	38SS37	636702.56	1178184.66	166.5
38SS23	636731.67	1178186.47	169.9	38SS38	636697.78	1178189.65	166.4
38SS24	636726.57	1178172.13	167.5	38SS39	636692.69	1178184.54	164.5
38SS25	636726.89	1178181.82	169.1				
38SS26	636721.43	1178167.01	166.3				
38SS27	636721.59	1178176.98	168.2				
38SS28	636723.43	1178186.19	170.4				

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CERTIFICATION:

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PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17, FLORIDA
ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

BY:

Kenneth R. Wengler
KENNETH R. WENGLER, FL. REG. NO. 3473

DATE OF SURVEY : August 8-9, 2001

08/14/02
DATE

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Appendix B

Testing Plan and Log

Testing Plan and Log

CH2M HILL Constructors, Inc.

Contract Number: N62467-98-D-0995		CTO No.: 0011			CTO Title: NAS Whiting Field					Location: Milton, FL			
Activity	Test Required	Sampler	Lab	COC #	Sample #	Matrix	Sample Type	Location	Depth	Date Test Made	Analysis Req'd	Test Results - See SAP for complete test results	Remarks
Site 6													
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SS1302-0809-01	Soil	Composite	6SS13	0-2'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SB1307-0809-01	Soil	Composite	6SS13	5-7'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SB1308-0809-01	Soil	Composite	6SS13	7-8'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SB1309-0809-01	Soil	Composite	6SS13	8-9'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SS1402-0809-01	Soil	Composite	6SS14	0-2'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SB1407-0809-01	Soil	Composite	6SS14	5-7'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SB1408-0809-01	Soil	Composite	6SS14	7-8'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SB1409-0809-01	Soil	Composite	6SS14	8-9'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SS1502-0809-01	Soil	Composite	6SS15	0-2'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-01	011-6SB1507-0809-01	Soil	Composite	6SS15	5-7'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB1508-0809-01	Soil	Composite	6SS15	7-8'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB1509-0809-01	Soil	Composite	6SS15	8-9'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SS1602-0809-01	Soil	Composite	6SS16	0-2'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB1607-0809-01	Soil	Composite	6SS16	5-7'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB1608-0809-01	Soil	Composite	6SS16	7-8'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB1609-0809-01	Soil	Composite	6SS16	8-9'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB0307-0809-01	Soil	Composite	6SS03	5-7'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB0308-0809-01	Soil	Composite	6SS03	7-8'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-02	011-6SB0309-0809-01	Soil	Composite	6SS03	8-9'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-03	011-6SS2502-0809-01	Soil	Composite	6SS14 FD	0-2'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-03	011-6SB2607-0809-01	Soil	Composite	6SS14 FD	5-7'	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-03	011-6SS5202-0809-01	Soil	Composite	6SS14/MS	NA	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-03	011-6SS5302-0809-01	Soil	Composite	6SS14/MSD	NA	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-03	011-6-Pre-EB01-0809-01	Water	Grab	NA	NA	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-03	011-6-Post-EB01-0809-01	Water	Grab	NA	NA	09-Aug-2001	SW8310 (Benzo-A-Pyrene Only)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6SS3602-0809-01	Soil	Composite	6SS36	0-2'	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6SS3702-0809-01	Soil	Composite	6SS37	0-2'	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6SS3802-0809-01	Soil	Composite	6SS38	0-2'	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6SS3902-0809-01	Soil	Composite	6SS39	0-2'	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6SS2702-0809-01	Soil	Composite	6SS38 FD	0-2'	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6SS5402-0809-01	Soil	Composite	6SS38/MS	NA	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6SS5502-0809-01	Soil	Composite	6SS38/MSD	NA	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6-Pre-EB02-0809-01	Water	Grab	NA	NA	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010809-04	011-6-Post-EB02-0809-01	Water	Grab	NA	NA	09-Aug-2001	FL-PRO (TRPH)	See PEL #2108063	
Soil Sample	Waste Profile	CCI /HILL	PEL Labs	151168-011204-01A	011-6-DP-01-S-5	Soil	Composite	Site 6, 6 Aliquots	0'-5'	04-Jan-2002	1311/82605,1311/8270C,1311/8081A,1311/8151,1311/8010B,TPH/FL-PRO&8082,1030&9045A,Chapter 7.3	See PEL #2112061	
Site 16													
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-1801-S-0807-01	Soil	Composite	16SO1801	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-1901-S-0807-01	Soil	Composite	16SO1901	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2001-S-0807-01	Soil	Composite	16SO2001	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2101-S-0807-01	Soil	Composite	16SO2101	0-2'	07-Aug-2001	SW8310	Awaiting Results	

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Testing Plan and Log

CH2M HILL Constructors, Inc.

Contract Number: N62467-98-D-0995		CTO No.: 0011			CTO Title: NAS Whiting Field						Location: Milton, FL		
Activity	Test Required	Sampler	Lab	COC #	Sample #	Matrix	Sample Type	Location	Depth	Date Test Made	Analysis Req'd	Test Results - See SAP for complete test results	Remarks
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2201-S-0876-01	Soil	Composite	16SO2201	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2301-S-0876-01	Soil	Composite	16SO2301	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2401-S-0807-01	Soil	Composite	16SO2401	0-2'	07-Aug-2001	SW8310	See PEL #2108134	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2501-S-0807-01	Soil	Composite	16SO2501	0-2'	07-Aug-2001	SW8310	See PEL #2108134	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2601-S-0807-01	Soil	Composite	16SO2601	0-2'	07-Aug-2001	SW8310	See PEL #2108134	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-01	011-16-2701-S-0807-01	Soil	Composite	16SO2701	0-2'	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-2801-S-0807-01	Soil	Composite	16SO2801	0-2'	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-2901-S-0807-01	Soil	Composite	16SO2901	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3001-S-0807-01	Soil	Composite	16SO3001	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3101-S-0807-01	Soil	Composite	16SO3101	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3201-S-0807-01	Soil	Composite	16SO3201	0-6"	07-Aug-2001	SW8310	See PEL #2108134	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3301-S-0807-01	Soil	Composite	16SO3301	0-1'	07-Aug-2001	SW8310	See PEL #2108134	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3401-S-0807-01	Soil	Composite	16SO3401	0-2'	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3501-S-0807-01	Soil	Composite	16SO3501	0-2'	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3601-S-0807-01	Soil	Composite	16SO3601	0-2'	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-02	011-16-3701-S-0807-01	Soil	Composite	16SO3701	0-2'	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-03	011-16-3801-S-0807-01	Soil	Composite	16SO3801	0-2'	07-Aug-2001	SW8310	See PEL #2108033	FDup of 16SO3601
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-03	011-16-3901-S-0807-01	Soil	Composite	16SO3901	0-2'	07-Aug-2001	SW8310	Awaiting Results	FDup of 16SO2701
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-03	011-16-2701-0807-01	Soil	Composite	16SO2701/MS	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-03	011-16-2701-0807-01	Soil	Composite	16SO2701/MSD	0-2'	07-Aug-2001	SW8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-03	011-16-PREEB-EB-0807-01	Water	Grab	Pre-EB	NA	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010807-03	011-16-PostEB-EB-0807-01	Water	Grab	Post-EB	NA	07-Aug-2001	SW8310	See PEL #2108033	
Soil Sample	Waste Profile	CCI /HILL	PEL Labs	151168-011204-01A	011-16-DP-01-S-2	Soil	Composite	Site 16, 5 Aliquots	0'-2'	04-Jan-2002	1311/8260B,1311/8270C,1311/8081A,1311/8151,1311/8010B,TPH/FL-PRO&8082,1030&9045A,Chapter 7.3	See STL #S1-16861	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-020510-01	011-16-PREEB-EB-01	Water	Grab	Pre-EB	N/A	10-May-2002	PAHs by 8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-020510-01	011-16-CS-S-01	Soil	Composite	Sample #1 Bottom	2'-3'	10-May-2002	PAHs by 8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-020510-01	011-16-CS-S-02	Soil	Composite	Sample #2 Bottom	2'-3'	10-May-2002	PAHs by 8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-020510-01	011-16-CS-S-02-MS	Soil	Composite	Sample #2 Bottom-MS	2'-3'	10-May-2002	PAHs by 8310	Awaiting Results	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-020510-01	011-16-CS-S-02-SD	Soil	Composite	Sample #2 Bottom-SD	2'-3'	10-May-2002	PAHs by 8310	Awaiting Results	
WaterSamp	Disposal Charact.	CCI /HILL	PEL Labs	151168-020523-01	011-16DP-01	Water	Grab	Decon Water Drums(3)	N/A	23-May-2002	8260,8270,FL-PRO,8081&8151,8082,Metals,CN,Flash,pH/Corr.,React./Sulfide	Awaiting Results	
Site 38													
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38SS20-S-0810-01	Soil	Composite	38SS20	0-2'	10-Aug-2001	8081A & FL-PRO (alpha-Chloradane, gamma-Chloradane, & heptachlor epoxide only)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38SS21-S-0810-01	Soil	Composite	38SS21	0-2'	10-Aug-2001	8081A & FL-PRO (alpha-Chloradane, gamma-Chloradane, & heptachlor epoxide only)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38SS24-S-0810-01	Soil	Composite	38SS24	0-2'	10-Aug-2001	8081A & FL-PRO (alpha-Chloradane, gamma-Chloradane, & heptachlor epoxide only)	See PEL # 2108078	

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Testing Plan and Log

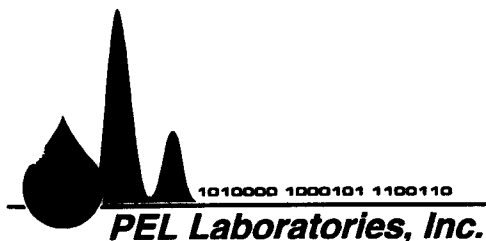
CH2M HILL Constructors, Inc.

Contract Number: N62467-98-D-0995		CTO No.: 0011			CTO Title: NAS Whiting Field						Location: Milton, FL		
Activity	Test Required	Sampler	Lab	COC #	Sample #	Matrix	Sample Type	Location	Depth	Date Test Made	Analyte Req'd	Test Results - See SAP for complete test results	Remarks
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38SS25-S-0810-01	Soil	Composite	38SS25	0-2'	10-Aug-2001	8081A & FL-PRO (alpha-Chloradane, gamma-Chloradane, & heptachlor epoxide only)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38SS29-S-0810-01	Soil	Composite	38SS29	0-2'	10-Aug-2001	8081A & FL-PRO (alpha-Chloradane, gamma-Chloradane, & heptachlor epoxide only)	See PEL # 2108078	Duplicate of 38SS20
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38SS20-S-0810-01	Soil	Composite	38SS20	0-2'	10-Aug-2001	8081A & FL-PRO (alpha-Chloradane, gamma-Chloradane, heptachlor epoxide, & dieldrin)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38SS20-S-0810-01	Soil	Composite	38SS20	0-2'	10-Aug-2001	8081A & FL-PRO (alpha-Chloradane, gamma-Chloradane, heptachlor epoxide, & dieldrin)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38PREEB01-W-0810-01	Water	Grab	PRE-EQUIP.	NA	10-Aug-2001	8081A & FL-PRO	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-01	011-38POSTEB01-W-0810-01	Water	Grab	POST-EQUIP.	NA	10-Aug-2001	8081A & FL-PRO	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-02	011-38SS35-S-0810-01	Soil	Composite	38SS35	0-2'	10-Aug-2001	8081A (heptachlor epoxide & dieldrin)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-02	011-38SS36-S-0810-01	Soil	Composite	38SS36	0-2'	10-Aug-2001	8081A (heptachlor epoxide & dieldrin)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-02	011-38SS38-S-0810-01	Soil	Composite	38SS38	0-2'	10-Aug-2001	8081A (heptachlor epoxide & dieldrin)	See PEL # 2108078	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010810-02	011-38SS2040-S-0810-01	Soil	Composite	38SS40	0-2'	10-Aug-2001	8081A (heptachlor epoxide & dieldrin)	See PEL # 2108078	38SS35
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38SO11-S-3	Soil	Composite	38SO11	2'-3'	19-Sep-2001	8081A, FL-PRO, & SPLP (alpha-Chloradane, gamma-Chloradane, & heptachlor epoxide only)	See PEL #2109093	Hold SPLP
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38SO11-S-6	Soil	Composite	38SO11	5'-6'	19-Sep-2001	8081A, FL-PRO, & SPLP (alpha-Chloradane, gamma-Chloradane, & heptachlor epoxide only)	See PEL #2109093	Hold SPLP
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38SO12-S-3	Soil	Composite	38SO12	2'-3'	19-Sep-2001	8081A, FL-PRO, & SPLP (alpha-Chloradane, gamma-Chloradane, heptachlor epoxide, & dieldrin)	See PEL #2109093	Hold SPLP
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38SO12-S-6	Soil	Composite	38SO12	5'-6'	19-Sep-2001	8081A, FL-PRO, & SPLP (alpha-Chloradane, gamma-Chloradane, heptachlor epoxide, & dieldrin)	See PEL #2109093	Hold SPLP
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38SO13-S-3	Soil	Composite	38SO12	2'-3'	19-Sep-2001	8081A, FL-PRO, & SPLP (alpha-Chloradane, gamma-Chloradane, heptachlor epoxide, & dieldrin)	See PEL #2109093	Hold SPLP/Dup of 12-S-3
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38SO12-S-3	Soil	Composite	38SO12	2'-3'	19-Sep-2001	8081A, FL-PRO, & SPLP (alpha-Chloradane, gamma-Chloradane, heptachlor epoxide, & dieldrin)	See PEL #2109093	Hold SPLP
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38SO12-S-3	Soil	Composite	38SO12	2'-3'	19-Sep-2001	8081A, FL-PRO, & SPLP (alpha-Chloradane, gamma-Chloradane, heptachlor epoxide, & dieldrin)	See PEL #2109093	Hold SPLP
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38PREEB02-W	Water	Grab	NA	NA	19-Sep-2001	8081A & FL-PRO	See PEL #2109093	
Soil Sample	Soil Charact.	CCI /HILL	PEL Labs	151168-010919-02	011-38POSTEB02-W	Water	Grab	NA	NA	19-Sep-2001	8081A & FL-PRO	See PEL #2109093	
Soil Sample	Waste Profile	CCI /HILL	PEL Labs	151168-011204-01A	011-38-DP-01-S-2	Soil	Composite	Site 38, 6 Aliquots	0'-2'	04-Jan-2002	1311/82808,1311/8270C,1311/8081A,1311/8151,1311/8010B,TPH/FL-PRO&8082,1030&9045A,Chapter 7.3	See STL #S1-16861	
BorrowPit													
Soil Sample	Fill Material Profile	CCI/HILL	PEL Labs	151168-020304-01	011-FILLMAT-01	Soil	Comp/Grab	NASWF Borrow Pit	1'	04-Mar-2002	5035/82808,8270C,8081A,8082,8010A/747	Awaiting Results	
Trip Blank	Fill Material Profile	CCI/HILL	PEL Labs	151168-020304-01	011-TRIPB-01	Water	Grab	NASWF Borrow Pit	N/A	04-Mar-2002	1,90458,8151A,FL-PRO,8021	Awaiting Results	
											82808/8021		

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Appendix C

Waste Disposal Sampling Laboratory Analytical Results



Customer Name: CH2MHILL
Date & Time Received: 1-7-02; 10:50 AM
Date Reported: 1-19-02
PEL Submission Number: 2112061
Project: Whiting Field (Site 6,16, & 38)

Samples: The submission consisted of 3 samples with sample identification shown in the attached data tables.

Tests: The samples were analyzed for EPA method:
101, 6010, 7471, 1311-8081, 8082, 1311/8151, 1311/8260, 1311/8270, 9045,
FLPRO, and Reactivity

Results: See the attached data tables for results.

Distribution of Reports:

1-CH2MHILL
Attn: Tatiana Romanova
Phone: (770) 604-9182

2-CH2MHILL
Attn: Amy Twitty
Phone: (850) 939-8300

Respectfully Submitted,

Brian Spann
Laboratory Manager
PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the quantities of apparently identical or similar materials.

4420 Pendola Point Road • Tampa, Florida 33619
(813) 247-2805 • FAX: (813) 248-1537

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Organics

Organic Data Qualifiers

- U** Indicates the compound was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that compound. The reporting limit can vary from sample to sample depending on dilution factors or the percent moisture adjustment when indicated.
- J** Indicates estimated value. It is used when the data indicates the presence of a compound above the method MDL yet lower than the reporting limit.
- B** Indicates the analyte was found in the associated blank as well as in the sample. The notation indicates possible contamination of the sample.
- E** Indicates the value reported is above the highest calibration standard for that compound. The sample should be analyzed at an appropriate dilution. "E" qualified values are estimations and the diluted result will be reported on another Form 1.
- D** Indicates the analyte has been identified in a dilution reanalysis. "D" qualifiers are used for samples that have been analyzed at a lesser dilution than required for accurate quantitation.
- C** The "C" flag indicates the presence of this compound has been confirmed by GC/MS analysis.
- P** This qualifier is used for pesticide / Aroclor target analytes where there is greater than 25% difference for the detected concentration between the two GC columns. The lower of the two values is reported on Form 1 with a "P" code.
- N** This qualifier indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the "N" qualifier is not used.
- A** This qualifier indicates that a TIC is suspected aldol-condensation product.
- M** This qualifier indicates that the compound is reported as a summation of analyte isomers.
- X** Data flagged as rejected by analyst utilizing analytical judgement.

Organic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for organic analysis are defined below:

- DL** Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.
- R** Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.
- RE** Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.
- MS** Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).
- SD** Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

GC/MS VOLATILE ORGANICS
METHOD 8260

**CASE NARRATIVE
GC/MS VOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2112061

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA 8260B/SW846

IV. PREPARATION

The TCLP samples were prepared by EPA 1311/SW846 for volatiles analysis. All aspects of sample preparation proceeded without exception.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

The blank analyzed with the TCLP samples met all criteria.

C. Surrogates:

All surrogate criteria were met.

**CASE NARRATIVE
GC/MS VOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2112061

D. Spikes:

Laboratory Control Samples (LCS)

One LCS was analyzed with the TCLP samples where all criteria were met for percent recovery.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

The client did not specify an MS/SD set to be analyzed. Client sample 01138DP01S2 was analyzed as an MS/SD where all criteria were met.

E. Internal standards:

All internal standard criteria were met.

F. Samples:

Sample analysis proceeded normally. Client specific reporting limits were used. The TCLP samples were analyzed at a dilution of 1:10 per PEL protocol. All results are reported in Mg/L.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

SIGNED: *Jan Pels* DATE: 01/15/02

VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld
Lab Code : PEL Case No. SAS No: SDG No.: 2112061
Method: 8260

EPA Sample No	Lab Sample ID
<u>01138DP01S2</u>	<u>211206101</u>
<u>0116DP01S5</u>	<u>211206102</u>
<u>01116DP01S2</u>	<u>211206103</u>

Sample Data

VOLATILE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid EPA Sample No. 01138DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206101 Lab File ID 06101.D
 Sample wt/vol: 5 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 5 Date Extracted:
 Level:(low/med) LOW Date Analyzed: 01/11/02 Time: 2004
 Percent Solids: 0 decanted: Dilution Factor: 10
 Extraction: PURGETRAP Station ID: 38,0-2ft Method: 8260
 GPC Cleanup: (Y/N) pH:
 Column(1): DB-624 ID: 0.18 (mm)
 CONCENTRATION UNITS: MGL

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
75-01-4	Vinyl chloride	0.1	U
75-35-4	1,1-Dichloroethene	0.1	U
78-93-3	2-Butanone	0.4	U
67-66-3	Chloroform	0.1	U
56-23-5	Carbon tetrachloride	0.1	U
71-43-2	Benzene	0.1	U
107-06-2	1,2-Dichloroethane	0.1	U
79-01-6	Trichloroethene	0.1	U
127-18-4	Tetrachloroethene	0.1	U
108-90-7	Chlorobenzene	0.1	U
106-46-7	1,4-Dichlorobenzene	0.1	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 0116DP01S5
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206102 Lab File ID 06102.D
 Sample wt/vol: 5 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 5 Date Extracted:
 Level:(low/med) LOW Date Analyzed: 01/11/02 Time: 2030
 Percent Solids: 0 decanted: Dilution Factor: 10
 Extraction: PURGETRAP Station ID: 6,0-5ft Method: 8260
 GPC Cleanup: (Y/N) pH:
 Column(1): DB-624 ID: 0.18 (mm)
 CONCENTRATION UNITS: MGL

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
75-01-4	Vinyl chloride	0.1	U
75-35-4	1,1-Dichloroethene	0.1	U
78-93-3	2-Butanone	0.4	U
67-66-3	Chloroform	0.1	U
56-23-5	Carbon tetrachloride	0.1	U
71-43-2	Benzene	0.1	U
107-06-2	1,2-Dichloroethane	0.1	U
79-01-6	Trichloroethene	0.1	U
127-18-4	Tetrachloroethene	0.1	U
108-90-7	Chlorobenzene	0.1	U
106-46-7	1,4-Dichlorobenzene	0.1	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid EPA Sample No. 01116DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206103 Lab File ID 06103.D
 Sample wt/vol: 5 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 5 Date Extracted:
 Level:(low/med) LOW Date Analyzed: 01/11/02 Time: 2057
 Percent Solids: 0 decanted: Dilution Factor: 10
 Extraction: PURGETRAP Station ID: 16,0-2ft Method: 8260
 GPC Cleanup: (Y/N) pH:
 Column(1): DB-624 ID: 0.18 (mm)
 CONCENTRATION UNITS: MGL

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
75-01-4	Vinyl chloride	0.1	U
75-35-4	1,1-Dichloroethene	0.1	U
78-93-3	2-Butanone	0.4	U
67-66-3	Chloroform	0.1	U
56-23-5	Carbon tetrachloride	0.1	U
71-43-2	Benzene	0.1	U
107-06-2	1,2-Dichloroethane	0.1	U
79-01-6	Trichloroethene	0.1	U
127-18-4	Tetrachloroethene	0.1	U
108-90-7	Chlorobenzene	0.1	U
106-46-7	1,4-Dichlorobenzene	0.1	U

GC/ECD PESTICIDE ORGANICS
METHOD 8081

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2112061

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8081

IV. PREPARATION

Soil samples were prepared by EPA SW846 3550 for 8081 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All calibration criteria were met.

B. Blanks:

All blank criteria were met.

C. Surrogates:

All surrogate criteria were met.

D. Spikes:

Laboratory Control Spikes (LCS)

All LCS criteria were met.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

All MS/SD criteria were met.

E. Internal standards:

All internal standard criteria were met.

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2112061

F. Samples:

Sample analysis proceeded normally. Data was collected using dual column analysis. Please note that the higher value of the two columns is reported, unless the %D between the two columns is >40%, in which case the lower of the two values is reported. Project specific RLs were used per client request. Soil samples are reported on a dry weight basis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED:  DATE: 1-18-02

PESTICIDE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid
Lab Code : PEL Case No. SAS No: SDG No.: 2112061
Method: 8081

EPA Sample No	Lab Sample ID
<u>01138DP01S2</u>	<u>211206101</u>
<u>0116DP01S5</u>	<u>211206102</u>
<u>01116DP01S2</u>	<u>211206103</u>

Sample Data

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld 01138DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206101 Lab File ID 6101.D
 Sample wt/vol: 925 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 10 Date Extracted: 01/09/02
 Level:(low/med) LOW Date Analyzed: 01/14/02 Time: 2145
 PercentSolids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: 38,0-2ft Method: 8081
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)
 CONCENTRATION UNITS: MGL

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
58-89-9	gamma-BHC (Lindane)	0.0022	U
76-44-8	Heptachlor	0.0022	U
1024-57-3	Heptachlor epoxide	0.0022	U
72-20-8	Endrin	0.0022	U
72-43-5	Methoxychlor	0.0216	U
57-74-9	Chlordane	0.0216	U
8001-35-2	Toxaphene	0.108	U

Higher value of the two columns reported as result unless %D between the columns is >40%, then the lower of the two results is reported

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld 0116DP01S5
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206102 Lab File ID: 6102.D
 Sample wt/vol: 925 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 10 Date Extracted: 01/09/02
 Level:(low/med) LOW Date Analyzed: 01/14/02 Time: 2215
 PercentSolids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: 6,0-5ft Method: 8081
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)
 CONCENTRATION UNITS: MGL

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
58-89-9	gamma-BHC (Lindane)	0.0022	U
76-44-8	Heptachlor	0.0022	U
1024-57-3	Heptachlor epoxide	0.0022	U
72-20-8	Endrin	0.0022	U
72-43-5	Methoxychlor	0.0216	U
57-74-9	Chlordane	0.0216	U
8001-35-2	Toxaphene	0.108	U

Higher value of the two columns reported as result unless %D between the columns is >40%, then the lower of the two results is reported

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld 01116DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206103 Lab File ID 6103.D
 Sample wt/vol: 945 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 10 Date Extracted: 01/09/02
 Level:(low/med) LOW Date Analyzed: 01/14/02 Time: 2244
 Percent Solids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: 16,0-2ft Method: 8081
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)
 CONCENTRATION UNITS: MG/L

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
58-89-9	gamma-BHC (Lindane)	0.0021	U
76-44-8	Heptachlor	0.0021	U
1024-57-3	Heptachlor epoxide	0.0021	U
72-20-8	Endrin	0.0021	U
72-43-5	Methoxychlor	0.0212	U
57-74-9	Chlordane	0.0212	U
8001-35-2	Toxaphene	0.106	U

Higher value of the two columns is reported as result unless %D between the columns is >40%, then the lower of the two results is reported

GC/ECD HERBICIDE ORGANICS
METHOD 8151

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 21112061

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8151

IV. PREPARATION

TCLP samples were prepared by EPA SW846 1311 prior to 8151 semi-volatiles preparation.
Water samples were prepared by EPA SW846 3510 for 8151 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met. The secondary standard for 2,4-D on the secondary column does not meet criteria for one of the columns. This is due to the secondary standard being a methylated standard, where as the curve is derivitized. The compound 2,4-D in the derivitized standards has a compound co-eluting with it, thus causing the non-derivitized secondary to be below acceptable criteria.

The Herbicide standards correspond to the following calibration files for Herbicide concentration at the instrument level:

CAL1= 0.025ug/mL

CAL2=0.05ug/mL

CAL3=0.1ug/mL

CAL4=0.15ug/mL

CAL5=0.2ug/mL

CAL6=0.25ug/mL

CAL7=0.3ug/mL

B. Blanks:

All blank criteria were met.

C. Surrogates:

All surrogate criteria were met.

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2112061

D. Spikes:

Laboratory Control Spikes (LCS)

All LCS criteria were met.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

All spike criteria were met.

E. Internal standards:

All internal standard criteria were met for the TCLP samples.

F. Samples:

Sample analysis proceeded normally. Data was collected using dual column analysis. Please note that the higher value of the two columns is reported, unless the %D between the two columns is >40%, in which case the lower of the two values is reported. Project specific RLs were used per client request. Soil samples are reported on a dry weight basis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED: Lara Keene DATE: 1/17/02
Lara Keene

HERBICIDE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid
Lab Code: PEL Case No. SAS No: SDG No.: 2112061
Method: 8151

EPA Sample No	Lab Sample ID
<u>01138DP01S2</u>	<u>211206101</u>
<u>0116DP01S5</u>	<u>211206102</u>
<u>01116DP01S2</u>	<u>211206103</u>

Sample Data

HERBICIDE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01138DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206101 Lab File ID 61-1.D
 Sample wt/vol: 900 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 10 Date Extracted: 01/10/02
 Level:(low/med) LOW Date Analyzed: 01/18/02 Time: 0425
 PercentSolids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: 38,0-2ft Method: 8151
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)
 CONCENTRATION UNITS: MGL

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
94-75-7	2,4'-D	0.0022	U
93-72-1	2,4,5-TP (Silvex)	0.0022	U

Higher value of the two columns reported as result unless %D between the columns is >40%, then the lower of the two results is reported

HERBICIDE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 0116DP01S5
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206102 Lab File ID 61-2.D
 Sample wt/vol: 950 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 10 Date Extracted: 01/10/02
 Level:(low/med) LOW Date Analyzed: 01/18/02 Time: 0507
 PercentSolids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: 6,0-5ft Method: 8151
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)
 CONCENTRATION UNITS: MGL

TCLP Analysis

CAS NO.	ANALYTE	RESULT	Q
94-75-7	2,4'-D	0.0021	U
93-72-1	2,4,5-TP (Silvex)	0.0021	U

Higher value of the two columns reported as result unless %D between the columns is >40%, then the lower of the two results is reported

HERBICIDE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01116DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: WATER Lab Sample ID: 211206103 Lab File ID 61-3.D
 Sample wt/vol: 925 Units: ML Date Received: 01/07/02
 Concentrated Extract Volume: 10 Date Extracted: 01/10/02
 Level:(low/med) LOW Date Analyzed: 01/18/02 Time: 0549
 Percent Solids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: 16,0-2ft Method: 8151
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)
 CONCENTRATION UNITS: MGL **TCLP Analysis**

CAS NO.	ANALYTE	RESULT	Q
94-75-7	2,4'-D	0.0022	U
93-72-1	2,4,5-TP (Silvex)	0.0022	U

Higher value of the two columns reported as result unless %D between the columns is >40%, then the lower of the two results is reported

GC FL-PRO ORGANICS
METHOD FL-PRO

CASE NARRATIVE
FLORIDA PETROLEUM RANGE ORGANICS (FL PRO) SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2112061

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

Florida DEP/FL PRO

IV. PREPARATION

Soil samples were prepared by FL PRO for semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All calibration criteria were met.

B. Blanks:

All blank criteria were met.

C. Surrogates:

All surrogate criteria were met.

D. Spikes:

Laboratory Control Spikes (LCS)

All LCS criteria were met.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

All MS/SD criteria were met.

E. Internal standards:

This method does not require the use of internal standards.


F. Samples:

Sample analysis proceeded normally. Project specific RLs were used per client request.

CASE NARRATIVE
FLORIDA PETROLEUM RANGE ORGANICS (FL PRO) SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2112061

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SIGNED:  DATE: 01-17-02

FL-PRO ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld
Lab Code: PEL Case No. SAS No: SDG No.: 2112061
Method: FL-PRO

EPA Sample No	Lab Sample ID
<u>01138DP01S2</u>	<u>211206101</u>
<u>0116DP01S5</u>	<u>211206102</u>
<u>01116DP01S2</u>	<u>211206103</u>

Sample Data

100102 1042

FL-PRO ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01138DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: SOIL Lab Sample ID: 211206101 Lab File ID 61-1.D
 Sample wt/vol: 25.07 Units: G Date Received: 01/07/02
 Concentrated Extract Volume: 2 Date Extracted: 01/09/02
 Level:(low/med) LOW Date Analyzed: 01/09/02 Time: 2120
 Percent Solids: 91.5 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: 38,0-2ft Method: FL-PRO
 GPC Cleanup: (Y/N) N pH:
 Column(1): RTX-5 ID: 0.53 (mm)
 CONCENTRATION UNITS: MG/KG

CAS NO.	ANALYTE	RESULT	Q
5289290-40-0	TPH	13.1	U

FL-PRO ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 0116DP01S5
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: SOIL Lab Sample ID: 211206102 Lab File ID 61-2.D
 Sample wt/vol: 25.09 Units: G Date Received: 01/07/02
 Concentrated Extract Volume: 2 Date Extracted: 01/09/02
 Level:(low/med) LOW Date Analyzed: 01/09/02 Time: 2155
 PercentSolids: 86 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: 6,0-5ft Method: FL-PRO
 GPC Cleanup: (Y/N) N pH:
 Column(1): RTX-5 ID: 0.53 (mm)
 CONCENTRATION UNITS: MG/KG

CAS NO.	ANALYTE	RESULT	Q
5289290-40-0	TPH	13.9	U

FL-PRO ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01116DP01S2
 Lab Code: PEL Case No. SAS No: SDG No.: 2112061
 Matrix: SOIL Lab Sample ID: 211206103 Lab File ID 61-3.D
 Sample wt/vol: 25.13 Units: G Date Received: 01/07/02
 Concentrated Extract Volume: 2 Date Extracted: 01/09/02
 Level:(low/med) LOW Date Analyzed: 01/09/02 Time: 2228
 PercentSolids: 85.2 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: 16,0-2ft Method: FL-PRO
 GPC Cleanup: (Y/N) N pH:
 Column(1): RTX-5 ID: 0.53 (mm)
 CONCENTRATION UNITS: MG/KG

CAS NO.	ANALYTE	RESULT	Q
5289290-40-0	TPH	82.4	

METALS DATA PACKAGE TCLP

**CASE NARRATIVE
TCLP Metals**

PEL Lab Reference No./SDG: 2112061

Client: CH2M Hill

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody included with this data package.

II. HOLDING TIMES

- A. Sample Preparation:** All holding times were met.
- B. Sample Analysis:** All holding times were met.

III. METHODS

EPA Method 6010B for metals and 7470 for mercury analysis. All methods performed according to EPA guidelines and PEL Laboratory's Standard Operating Procedures.

IV. PREPARATION

EPA Method 1311 for the TCLP leaching, 3010A for TCLP metals leachate. EPA Method 7470 for TCLP mercury leachate. Methods performed according to EPA guidelines and PEL Laboratory's Standard Operating Procedures.

V. ANALYSIS 01/10/02 (6010B), 01/11/02 (7470)

- A. Calibration:** All quality control criteria were met.
- B. Blanks:** All calibration and preparation blank quality control criteria were met.
- C. Spikes:** All percent recovery quality control criteria were met.
- D. Duplicates:** All percent difference quality control criteria were met.
- E. Samples:** All sample analysis proceeded normally.
- F. ICP interference Check Samples:** All percent recovery quality control criteria were met.
- G. Laboratory Control Samples:** All percent recovery quality control criteria were met.
- H. Serial Dilution:** All quality control criteria was met.

CASE NARRATIVE
TCLP Metals

PEL Lab Reference No./SDG: 2112061

I. Post Digestion Spike: All percent recovery quality control criteria were met.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

SIGNED: 
Section Leader or designee

DATE: 01/11/02

U.S. EPA - CLP
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld
Lab Code: PEL Case No. _____ SDG No.: 2112061
SOW No.: _____

EPA Sample No	Lab Sample ID
<u>01138DP01S2</u>	<u>211206101</u>
<u>0116DP01S5</u>	<u>211206102</u>
<u>01116DP01S2</u>	<u>211206103</u>

Were ICP interelement corrections applied? Yes/No Yes
Were ICP background corrections applied? Yes/No Yes
If yes - were raw data generated before
application of background corrections? Yes/No No

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature

Signature: Jason I. Fark
Date: 1/19/02

Name: Mark Gudnason
Title: Metals Section Leader

Sample Data

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld 01138DP01S2

Lab Code: PEL Case No. SAS No: SDG No.: 2112061

Matrix: SOIL Lab Sample ID: 211206101

Level:(low/med) LOW Date Received: 1/7/2002

PercentSolids: 0

TCLP AnalysisCONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7440-38-2	Arsenic	0.05	U		P
7440-39-3	Barium	0.6	J		P
7440-43-9	Cadmium	0.2	U		P
7440-47-3	Chromium	0.5	U		P
7439-92-1	Lead	0.5	U		P
7439-97-6	Mercury	0.005	U		CV
7782-49-2	Selenium	0.1	U		P
7440-22-4	Silver	0.2	U		P

Color Before: Clarity Before: Texture : Color After : Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld 0116DP01S5

Lab Code: PEL Case No. SAS No: SDG No.: 2112061

Matrix: SOIL Lab Sample ID: 211206102

Level: (low/med) LOW Date Received: 1/7/2002

Percent Solids: 0

TCLP AnalysisCONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7440-38-2	Arsenic	0.05	U		P
7440-39-3	Barium	0.69	J		P
7440-43-9	Cadmium	0.2	U		P
7440-47-3	Chromium	0.5	U		P
7439-92-1	Lead	0.5	U		P
7439-97-6	Mercury	0.005	U		CV
7782-49-2	Selenium	0.1	U		P
7440-22-4	Silver	0.2	U		P

Color Before: Clarity Before: Texture : Color After : Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

01116DP01S2

Lab Name: PEL Laboratories, Inc.

Contract: Whiting Fld

Lab Code: PEL

Case No.

SAS No:

SDG No.: 2112061

Matrix: SOIL

Lab Sample ID: 211206103

Level:(low/med) LOW

Date Received: 1/7/2002

Percent Solids: 0

TCLP Analysis

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7440-38-2	Arsenic	0.05	U		P
7440-39-3	Barium	3	J		P
7440-43-9	Cadmium	0.12	J		P
7440-47-3	Chromium	0.5	U		P
7439-92-1	Lead	2.2			P
7439-97-6	Mercury	0.005	U		CV
7782-49-2	Selenium	0.1	U		P
7440-22-4	Silver	0.2	U		P

Color Before: _____

Clarity Before: _____

Texture : _____

Color After : _____

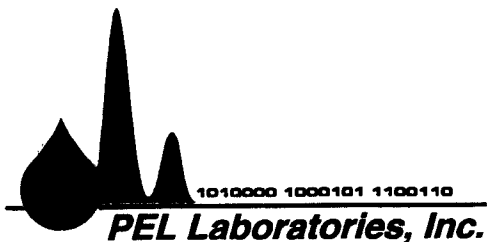
Clarity After: _____

Artifacts: _____

Comments:

Appendix D

Offsite Backfill Material Analytical Results



Customer Name: CH2MHILL
Date & Time Received: 3-5-02; 10:00 AM
Date Reported: 3-18-02
PEL Submission Number: 2202149
Project: Whiting Field (Site 6,16, & 38)

Samples: The submission consisted of 2 samples with sample identification shown in the attached data tables.

Tests: The samples were analyzed for EPA method:
8260, 8270, 8081, 8082, 8151, FL PRO, 6010, 7471, and 9045

Results: See the attached data tables for results.

Distribution of Reports:

1-CH2MHILL
Attn: Tatiana Romanova
Phone: (770) 604-9182

2-CH2MHILL
Attn: Amy Twitty
Phone: (850) 939-8300

Respectfully Submitted,

Brian Spann
Laboratory Manager
PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

4420 Pendola Point Road • Tampa, Florida 33619
(813) 247-2805 • FAX: (813) 248-1537

Cross-Reference sheet for SDG 2202149-Whiting Fld

	SDG	FieldID	SampleType	LabSampleID	SampleDescription
Whiting Fld	2202149	011FILLMAT01	N	220214901	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01MS	MS	64780	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01MS	MS	64790	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01MS	MS	64865	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01MS	MS	64903	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01MS	MS	65045	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01SD	SD	64866	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01SD	SD	64904	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01SD	SD	64791	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01SD	SD	64781	011-FILLMAT-01
Whiting Fld	2202149	011FILLMAT01SD	SD	65046	011-FILLMAT-01
Whiting Fld	2202149	011TRIPB01	N	220214902	011-TRIPB-01
Whiting Fld	2202149	0306BLKA32	MB	0306BLKA32	0306BLKA32
Whiting Fld	2202149	0306BLKA32MS	BS	0306BLKA32MS	0306BLKA32
Whiting Fld	2202149	0306BLKA32SD	BD	0306BLKA32SD	0306BLKA32
Whiting Fld	2202149	0306BLKS12	MB	0306BLKS12	0306BLKS12
Whiting Fld	2202149	0306BLKS12MS	BS	0306BLKS12MS	0306BLKS12
Whiting Fld	2202149	0306BLKS12SD	BD	0306BLKS12SD	0306BLKS12
Whiting Fld	2202149	0306LCSA31	BS	0306LCSA31	0306LCSA31
Whiting Fld	2202149	0306LCSS11	BS	0306LCSS11	0306LCSS11
Whiting Fld	2202149	06BLK	MB	64776	06BLK
Whiting Fld	2202149	06LCSS	BS	64777	06LCSS
Whiting Fld	2202149	08BLKS	MB	64860	08BLKS
Whiting Fld	2202149	08LCSS	BS	64861	08LCSS
Whiting Fld	2202149	08TOX	BS	64862	08TOX
Whiting Fld	2202149	307SBLK	MB	64786	307SBLK

	SDG	FieldID	SampleType	LabSampleID	SampleDescription
Whiting Fld	2202149	307SLCS	BS	64787	307SLCS
Whiting Fld	2202149	64901BLK	MB	64901	64901BLK
Whiting Fld	2202149	64902LCS	BS	64902	64902LCS
Whiting Fld	2202149	65043BLK	MB	65043	65043BLK
Whiting Fld	2202149	65044LCS	BS	65044	65044LCS
Whiting Fld	2202149	A08BLK	MB	64867	A08BLK
Whiting Fld	2202149	A08BLKMS	BS	64869	A08BLK
Whiting Fld	2202149	A08BLKSD	BD	64870	A08BLK
Whiting Fld	2202149	A08LCS	BS	64868	A08LCS
Whiting Fld	2202149	BLKS1	MB	64800	BLKS1
Whiting Fld	2202149	BLKS1MS	BS	64802	BLKS1
Whiting Fld	2202149	BLKS1MSD	BD	64803	BLKS1
Whiting Fld	2202149	LCSS1	BS	64801	LCSS1

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Organics

Organic Data Qualifiers

- U** Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary from sample to sample depending on dilution factors or the percent moisture adjustment when indicated.
- J** Indicates estimated value. It is used when the data indicates the presence of an analyte above the method detection limit (MDL) yet lower than the reporting limit.
- B** Indicates the analyte was found in the associated blank as well as in the sample. The notation indicates possible contamination of the sample.
- E** Indicates the value reported is above the highest calibration standard for that analyte. The sample should be analyzed at an appropriate dilution. "E" qualified values are estimations and the diluted result may be reported on another Form 1.
- D** Indicates the analyte has been identified in a dilution reanalysis. "D" qualifiers are used for samples that have been analyzed at a lesser dilution than required for accurate quantitation.
- C** The "C" qualifier indicates the presence of this analyte has been confirmed by GC/MS analysis.
- P** This qualifier is used for pesticide / Aroclor target analytes where there is greater than 25% difference for the detected concentration between the two GC columns. The lower of the two values is reported on Form 1 with a "P" qualifier.
- N** This qualifier indicates presumptive evidence of an analyte. This qualifier is only used for tentatively identified compounds (TIC), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the "N" qualifier is not used.
- A** This qualifier indicates that a TIC is a suspected aldol-condensation product.
- X** Data flagged as rejected by analyst utilizing analytical judgement.

Organic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for organic analysis are defined below:

- DL** Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.
- R** Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.
- RE** Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.
- MS** Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).
- SD** Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

GC/MS VOLATILE ORGANICS
METHOD 8260

**CASE NARRATIVE
GC/MS VOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA 8260B/SW846

IV. PREPARATION

Water samples were prepared by SW846/5030 for EPA8260B volatiles analysis. All aspects of sample preparation proceeded without exception.

Soil samples were prepared by SW846/5035 for EPA8260B volatiles analysis. All aspects of sample preparation proceeded without exception.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

Blank 0306BLKS12 analyzed with the soil samples had 2-Hexanone above the MDL but below the RL. No further action is necessary. All associated samples received the appropriate qualifier. The blank analyzed with the water samples met the criteria.

C. Surrogates:

All surrogate criteria were met.

**CASE NARRATIVE
GC/MS VOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

D. Spikes:

Laboratory Control Samples (LCS)

In the analytical batch M3030602a, Methylene Chloride was above the acceptance criteria for percent recovery. No further action was necessary; these results are within the PEL 10% limits. In the analytical batch M1030602, 1,1,2,2-Tetrachloroethane was above the acceptance criteria for percent recovery. No further action was necessary; these results are within the PEL 10% limits.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

The client did not specify an MS/SD set to be analyzed. Reagent water spikes were analyzed as an MS/SD where Methylene Chloride and 2-Butanone were above the acceptance criteria for percent recovery in the MS sample, and 2-Butanone was above the acceptance criteria for percent recovery in the SD sample. Chloroethane and Methylene Chloride did not meet the acceptance criteria for Relative Percent Difference. These results are within the PEL 10% limits. No further action was taken. Reagent sand spikes were analyzed as an MS/SD where all criteria were met.

E. Internal standards:

All internal standard criteria were met.

F. Samples:

Sample analysis proceeded normally. Client specific reporting limits were used.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

SIGNED: *hrr Pel* DATE: 03-15-02

VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid
Lab Code : PEL Case No. SAS No: SDG No.: 2202149
Method: 8260

EPA Sample No

Lab Sample ID

011FILLMAT01

220214901

011TRIPB01

220214902

Sample Data

VOLATILE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 011FILLMAT01
 Lab Code: PEL Case No. SAS No: SDG No.: 2202149
 Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: 14901F.D
 Sample wt/vol: 5.04 Units: G Date Received: 03/05/02
 Concentrated Extract Volume: 5 Date Extracted:
 Level:(low/med) LOW Date Analyzed: 03/06/02 Time: 1114
 Percent Solids: 90.8 decanted: Dilution Factor: 1
 Extraction: PURGETRAP Station ID: Clean Fill Mat. Method: 8260
 GPC Cleanup: (Y/N) pH:
 Column(1): DB-624 ID: 0.18 (mm)
 CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
74-87-3	Chloromethane	2.2	U
75-01-4	Vinyl chloride	2.2	U
74-83-9	Bromomethane	2.2	U
75-00-3	Chloroethane	2.2	U
75-35-4	1,1-Dichloroethene	2.2	U
75-15-0	Carbon disulfide	2.2	U
75-09-2	Methylene chloride	2.2	U
156-60-5	trans-1,2-Dichloroethene	2.2	U
75-34-3	1,1-Dichloroethane	2.2	U
67-64-1	Acetone	4.9	U
156-59-2	cis-1,2-Dichloroethene	2.2	U
78-93-3	2-Butanone	4.4	U
67-66-3	Chloroform	2.2	U
71-55-6	1,1,1-Trichloroethane	2.2	U
56-23-5	Carbon tetrachloride	2.2	U
71-43-2	Benzene	2.2	U
107-06-2	1,2-Dichloroethane	2.2	U
79-01-6	Trichloroethene	2.2	U
108-05-4	Vinyl acetate	2.2	U
78-87-5	1,2-Dichloropropane	2.2	U
75-27-4	Bromodichloromethane	2.2	U
10061-01-5	cis-1,3-Dichloropropene	2.2	U
108-10-1	4-Methyl-2-pentanone	4.4	U
108-88-3	Toluene	2.2	U
10061-02-6	trans-1,3-Dichloropropene	2.2	U
79-00-5	1,1,2-Trichloroethane	2.2	U
127-18-4	Tetrachloroethene	2.2	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid 011FILLMAT01
 Lab Code: PEL Case No. SAS No: SDG No.: 2202149
 Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: 14901R.D
 Sample wt/vol: 5.04 Units: G Date Received: 03/05/02
 Concentrated Extract Volume: 5 Date Extracted:
 Level:(low/med) LOW Date Analyzed: 03/06/02 Time: 1114
 PercentSolids: 90.8 decanted: Dilution Factor: 1
 Extraction: PURGETRAP Station ID: Clean Fill Mat. Method: 8260
 GPC Cleanup: (Y/N) pH:
 Column(1): DB-624 ID: 0.18 (mm)
 CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
142-28-9	1,3-Dichloropropane	2.2	U
591-78-6	2-Hexanone	4.4	U
124-48-1	Dibromochloromethane	2.2	U
108-90-7	Chlorobenzene	2.2	U
100-41-4	Ethylbenzene	2.2	U
511-39-00	p,m-Xylene	4.4	U
95-47-6	o-Xylene	2.2	U
100-42-5	Styrene	2.2	U
75-25-2	Bromoform	2.2	U
79-34-5	1,1,2,2-Tetrachloroethane	2.2	U
540-59-0	1,2-Dichloroethene (total)	4.4	U
1330-20-7	Xylene (total)	6.6	U
100-44-7	Benzyl chloride	2.2	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 011TRIPB01
 Lab Code: PEL Case No. SAS No: SDG No.: 2202149
 Matrix: WATER Lab Sample ID: 220214902 Lab File ID: 14902.D
 Sample wt/vol: 5 Units: ML Date Received: 03/05/02
 Concentrated Extract Volume: 5 Date Extracted:
 Level:(low/med) LOW Date Analyzed: 03/06/02 Time: 1547
 PercentSolids: 0 decanted: Dilution Factor: 1
 Extraction: PURGETRAP Station ID: Trip Blank Method: 8260
 GPC Cleanup: (Y/N) pH:
 Column(1): DB-624 ID: 0.18 (mm)
 CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	RESULT	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
75-35-4	1,1-Dichloroethene	1	U
75-15-0	Carbon disulfide	1	U
75-09-2	Methylene chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
67-64-1	Acetone	4	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	2.1	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon tetrachloride	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
108-05-4	Vinyl acetate	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-10-1	4-Methyl-2-pentanone	2	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
127-18-4	Tetrachloroethene	1	U

VOLATILE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 011TRIPB01
 Lab Code: PEL Case No. SAS No: SDG No.: 2202149
 Matrix: WATER Lab Sample ID: 220214902 Lab File ID: 14902.D
 Sample wt/vol: 5 Units: ML Date Received: 03/05/02
 Concentrated Extract Volume: 5 Date Extracted:
 Level: (low/med) LOW Date Analyzed: 03/06/02 Time: 1547
 Percent Solids: 0 decanted: Dilution Factor: 1
 Extraction: PURGETRAP Station ID: Trip Blank Method: 8260
 GPC Cleanup: (Y/N) pH:
 Column(1): DB-624 ID: 0.18 (mm)
 CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	RESULT	Q
142-28-9	1,3-Dichloropropane	1	U
591-78-6	2-Hexanone	2	U
124-48-1	Dibromochloromethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
511-39-00	p,m-Xylene	2	U
95-47-6	o-Xylene	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
540-59-0	1,2-Dichloroethene (total)	1	U
1330-20-7	Xylene (total)	3	U
100-44-7	Benzyl chloride	1	U

GC/MS SEMI-VOLATILE ORGANICS
METHOD 8270

**CASE NARRATIVE
GC/MS SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8270

IV. PREPARATION

Samples were prepared by EPA SW846 3545 for 8270 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

All acceptance criteria were met.

C. Surrogates:

All acceptance criteria were met.

D. Spikes:

Laboratory Control Spikes (LCS)

All acceptance criteria were met.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

Reagent MS/SD samples were analyzed, where all criteria were met with the exception of:

MS- Phenol was recovered above criteria at 80.6 % with criteria of (13-69%)

SD- Phenol was recovered above criteria at 78.8 % with criteria of (13-69%)
No further action was taken.

E. Internal standards:

All acceptance criteria were met.

**CASE NARRATIVE
GC/MS SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

F. Samples:

Sample analysis proceeded normally. Specific RLs were used per client request. Please note that the Client was notified that the lowest point in the calibration curve is above the requested reporting limit for: N-Nitroso-di-n-propylamine (90ug/Kg), Benzo(a) pyrene (100 ug/Kg), and Dibenz(a,h)anthracene (100 ug/Kg).

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED:  DATE: 3-13-07

SEMI-VOLATILE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld
Lab Code: PEL Case No. SAS No: SDG No.: 2202149
Method: 8270

EPA Sample No	Lab Sample ID
<u>011FILLMAT01</u>	<u>220214901</u>

Sample Data

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 011FILLMAT01
 Lab Code: PEL Case No. SAS No: SDG No.: 2202149
 Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: 149-01.D
 Sample wt/vol: 15.17 Units: G Date Received: 03/05/02
 Concentrated Extract Volume: 1 Date Extracted: 03/06/02
 Level:(low/med) LOW Date Analyzed: 03/07/02 Time: 1453
 PercentSolids: 90.8 decanted: Dilution Factor: 1
 Extraction: OTHER Station ID: Clean Fill Mat. Method: 8270
 GPC Cleanup: (Y/N) N pH:
 Column(1): HPMS-5 ID: 0.25 (mm)
 CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
111-44-4	Bis(2-Chloroethyl)ether	363	U
108-95-2	Phenol	363	U
95-57-8	2-Chlorophenol	363	U
541-73-1	1,3-Dichlorobenzene	363	U
106-46-7	1,4-Dichlorobenzene	363	U
95-50-1	1,2-Dichlorobenzene	363	U
100-51-6	Benzyl alcohol	526	U
108-60-1	bis(2-Chloroisopropyl)ether	363	U
95-48-7	2-Methylphenol (o-Cresol)	363	U
67-72-1	Hexachloroethane	363	U
621-64-7	N-Nitroso-di-n-propylamine	163	U
106-44-5	4-Methylphenol	363	U
98-95-3	Nitrobenzene	363	U
78-59-1	Isophorone	363	U
88-75-5	2-Nitrophenol	363	U
105-67-9	2,4-Dimethylphenol	363	U
65-85-0	Benzoic acid	363	U
111-91-1	Bis(2-Chloroethoxy)methane	363	U
120-83-2	2,4-Dichlorophenol	363	U
120-82-1	1,2,4-Trichlorobenzene	363	U
91-20-3	Naphthalene	363	U
106-47-8	4-Chloroaniline	363	U
91-57-6	2-Methylnaphthalene	363	U
87-68-3	Hexachlorobutadiene	363	U
59-50-7	4-Chloro-3-methylphenol	363	U
90-12-0	1-Methylnaphthalene	363	U
77-47-4	Hexachlorocyclopentadiene	363	U

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No. **011FILLMAT01**

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld

Lab Code: PEL Case No. SAS No: SDG No.: 2202149

Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: 149-01.D

Sample wt/vol: 15.17 Units: G Date Received: 03/05/02

Concentrated Extract Volume: 1 Date Extracted: 03/06/02

Level:(low/med) LOW Date Analyzed: 03/07/02 Time: 1453

PercentSolids: 90.8 decanted: Dilution Factor: 1

Extraction: OTHER Station ID: Clean Fill Mat. Method: 8270

GPC Cleanup: (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
88-06-2	2,4,6-Trichlorophenol	363	U
95-95-4	2,4,5-Trichlorophenol	363	U
91-58-7	2-Chloronaphthalene	363	U
88-74-4	2-Nitroaniline	363	U
208-96-8	Acenaphthylene	363	U
131-11-3	Dimethyl-phthalate	363	U
606-20-2	2,6-Dinitrotoluene	363	U
83-32-9	Acenaphthene	363	U
99-09-2	3-Nitroaniline	363	U
51-28-5	2,4-Dinitrophenol	726	U
132-64-9	Dibenzofuran	363	U
121-14-2	2,4-Dinitrotoluene	363	U
100-02-7	4-Nitrophenol	726	U
86-73-7	Fluorene	363	U
7005-72-3	4-Chlorophenyl-phenylether	363	U
84-66-2	Diethylphthalate	363	U
100-01-6	4-Nitroaniline	363	U
534-52-1	2-Methyl-4,6-dinitrophenol	726	U
86-30-6	N-Nitrosodiphenylamine	363	U
101-55-3	4-Bromophenyl-phenylether	363	U
118-74-1	Hexachlorobenzene	363	U
87-86-5	Pentachlorophenol	363	U
85-01-8	Phenanthrene	363	U
120-12-7	Anthracene	363	U
84-74-2	Di-n-butylphthalate	363	U
206-44-0	Fluoranthene	363	U
129-00-0	Pyrene	363	U

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No. 011FILLMAT01

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld

Lab Code: PEL Case No. SAS No: SDG No.: 2202149

Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: 149-01.D

Sample wt/vol: 15.17 Units: G Date Received: 03/05/02

Concentrated Extract Volume: 1 Date Extracted: 03/06/02

Level:(low/med) LOW Date Analyzed: 03/07/02 Time: 1453

PercentSolids: 90.8 decanted : Dilution Factor: 1

Extraction: OTHER Station ID: Clean Fill Mat. Method: 8270

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
85-68-7	Butylbenzylphthalate	363	U
91-94-1	3,3'-Dichlorobenzidine	363	U
56-55-3	Benzo(a)anthracene	363	U
218-01-9	Chrysene	363	U
117-81-7	bis(2-ethylhexyl)phthalate	363	U
117-84-0	Di-n-octylphthalate	363	U
205-99-2	Benzo(b)fluoranthene	363	U
207-08-9	Benzo(k)fluoranthene	363	U
50-32-8	Benzo(a)pyrene	182	U
193-39-5	Indeno(1,2,3-cd)pyrene	363	U
53-70-3	Dibenz(a,h)anthracene	182	U
191-24-2	Benzo(g,h,i)perylene	363	U
86-74-8	Carbazole	363	U

GC/ECD PESTICIDE ORGANICS
METHOD 8081

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8081

IV. PREPARATION

Soil samples were prepared by EPA SW846 3550 for 8081 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All calibration criteria were met.

B. Blanks:

All blank criteria were met.

C. Surrogates:

All surrogate criteria were met.

D. Spikes:

Laboratory Control Spikes (LCS)

There was one LCS analyzed with the soil samples where Alpha-BHC exceeded acceptable criteria.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

There was one MS/SD set analyzed with the soil samples, on sample 011FILLMAT01, where all criteria were met for relative percent difference, however Alpha-BHC exceeded acceptable criteria in the MS and SD samples for percent recovery. Since all surrogate and internal standard criteria were met, and since the compound exceeded recovery no further action was taken.

E. Internal standards:

All internal standard criteria were met.

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

F. Samples:

Sample analysis proceeded normally. Data was collected using dual column analysis. Please note that the higher value of the two columns is reported, unless the %D between the two columns is >40%, in which case the lower of the two values is reported. Project specific RLs were used per client request. Soil samples are reported on a dry weight basis.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

SIGNED: *B. J. [Signature]* DATE: 3-14-02

PESTICIDE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld
Lab Code: PEL Case No. SAS No: SDG No.: 2202149
Method: 8081

EPA Sample No

Lab Sample ID

011FILLMAT01

220214901

Sample Data

PESTICIDE ORGANIC ANALYSIS DATA SHEET

EPA Sample No. **011FILLMAT01**

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid

Lab Code: PEL Case No. SAS No: SDG No.: 2202149

Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: 14901.D

Sample wt/vol: 33 Units: G Date Received: 03/05/02

Concentrated Extract Volume: 10 Date Extracted: 03/08/02

Level:(low/med) LOW Date Analyzed: 03/12/02 Time: 1003

PercentSolids: 90.8 decanted: Dilution Factor: 1

Extraction: SONC Station ID: Clean Fill Mat. Method: 8081

GPC Cleanup: (Y/N) N pH:

Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)

CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
319-84-6	alpha-BHC	1.6	U
319-85-7	beta-BHC	1.6	U
319-86-8	delta-BHC	1.6	U
58-89-9	gamma-BHC (Lindane)	1.6	U
76-44-8	Heptachlor	1.6	U
309-00-2	Aldrin	1.6	U
1024-57-3	Heptachlor epoxide	1.6	U
959-98-8	Endosulfan I	1.6	U
60-57-1	Dieldrin	1.6	U
72-55-9	4,4'-DDE	1.6	U
72-20-8	Endrin	1.6	U
33213-65-9	Endosulfan II	1.6	U
72-54-8	4,4'-DDD	1.6	U
1031-07-8	Endosulfan sulfate	1.6	U
50-29-3	4,4'-DDT	1.6	U
72-43-5	Methoxychlor	1.6	U
7421-93-4	Endrin aldehyde	1.6	U
5103-71-9	alpha-Chlordane	1.6	U
5103-74-2	gamma-Chlordane	1.6	U
53494-70-5	Endrin ketone	1.6	U
8001-35-2	Toxaphene	91	U

Higher value of the two columns reported as result unless %D between the columns is >40%, then the lower of the two results is reported

GC/ECD PCB ORGANICS
METHOD 8082

CASE NARRATIVE
POLYCHLORINATED BIPHENYLS (PCB) SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2202149

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8082

IV. PREPARATION

Soil samples were prepared by SW846 EPA 3550B for 8082 semi-volatiles analysis.

All aspects of sample preparation proceeded without exception.

V. ANALYSIS

A. Calibration:

All calibration criteria were met.

B. Blanks:

All blank criteria were met.

C. Surrogates:

All surrogate criteria were met.

D. Spikes:

PCB 1016 and PCB 1260 were used as the spiking solution for all QC spikes per the AFCEE QAPP 3.0.

Laboratory Control Spikes (LCS)

All LCS criteria were met.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

All spike criteria were met.

E. Internal standards:

This method does not require the use of internal standards.

CASE NARRATIVE
POLYCHLORINATED BIPHENYLS (PCB) SEMIVOLATILE ORGANICS

PEL Lab Reference No./SDG: 2202149

F. Samples:

Sample analysis proceeded normally. Data was collected using dual column analysis. Please note that the higher value of the two columns is reported, unless the %D between the two columns is >40%, in which case the lower of the two values is reported. Project specific RLs were used per client request. Soil samples are reported on a dry weight basis.

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SIGNED:  DATE: 3-14-02

PCB ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld
Lab Code : PEL Case No. SAS No: SDG No.: 2202149
Method: 8062

EPA Sample No

Lab Sample ID

011FILLMAT01

220214901

Sample Data

PCB ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld 011FILLMAT01
 Lab Code: PEL Case No. SAS No: SDG No.: 2202149
 Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: A14901.D
 Sample wt/vol: 33 Units: G Date Received: 03/05/02
 Concentrated Extract Volume: 10 Date Extracted: 03/08/02
 Level:(low/med) LOW Date Analyzed: 03/12/02 Time: 1557
 PercentSolids: 90.8 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: Clean Fill Mat. Method: 8082
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm)
 CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
12674-11-2	Aroclor-1016	16	U
11096-82-5	Aroclor-1260	25	U
11104-28-2	Aroclor-1221	36	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	74	U

GC/ECD HERBICIDE ORGANICS
METHOD 8151

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

Client: CH2MHILL

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this data package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

EPA SW846 8151

IV. PREPARATION

Soil samples were prepared by EPA SW846 3550 for 8151 semi-volatiles analysis.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

There was one blank analyzed associated with the water samples that was non-detect for target analytes.

C. Surrogates:

All surrogate criteria were met.

D. Spikes:

Laboratory Control Spikes (LCS)

All LCS criteria were met.

Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

All spike criteria were met.

E. Internal standards:

All internal standard criteria were met.

**CASE NARRATIVE
GC/ECD SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2202149

F. Samples:

Sample analysis proceeded normally. Data was collected using dual column analysis. Please note that the higher value of the two columns is reported, unless the %D between the two columns is >40%, in which case the lower of the two values is reported. Project specific RLs were used per client request. Soil samples are reported on a dry weight basis.

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SIGNED:  DATE: 3/14/02

HERBICIDE ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld
Lab Code : PEL Case No. SAS No: SDG No.: 2202149
Method: 8151

EPA Sample No **Lab Sample ID**

011FILLMAT01 220214901

Sample Data

HERBICIDE ORGANIC ANALYSIS DATA SHEET

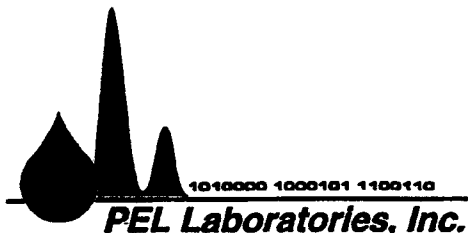
Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 011FILLMAT01
 Lab Code: PEL Case No. SAS No: SDG No.: 2202149
 Matrix: SOIL Lab Sample ID: 220214901 Lab File ID: 14901.D
 Sample wt/vol: 33.02 Units: G Date Received: 03/05/02
 Concentrated Extract Volume: 10 Date Extracted: 03/06/02
 Level:(low/med) LOW Date Analyzed: 03/08/02 Time: 1028
 PercentSolids: 90.8 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: Clean Fill Mat. Method: 8151
 GPC Cleanup: (Y/N) N pH:
 Column(1): XTI-5 ID: 0.53 (mm) Column(2): RTX-1701 ID: 0.53 (mm)
 CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
1918-00-9	Dicamba	8.4	U
75-99-0	Dalapon	9	U
93-65-2	MCPD	1100	U
94-74-6	MCPA	1530	JP
120-36-5	Dichloroprop	8.4	U
94-75-7	2,4'-D	8.4	U
93-72-1	2,4,5-TP (Silvex)	8.4	U
93-76-5	2,4,5-T	8.4	U
94-82-6	2,4-DB	8.4	U
88-85-7	Dinoseb	8.4	U

Higher value of the two columns reported as result unless %D between the columns is >40%, then the lower of the two results is reported

Appendix E

Site 16 Soil Confirmation Laboratory Analytical Results



Customer Name: CH2MHILL
Date & Time Received: 5-14-02, 10:43 AM
Date Reported: 5-28-02
PEL Submission Number: 2204044
Project: Whiting Field (Site 16)

Samples: The submission consisted of 5 samples with sample identification shown in the attached data tables.

Tests: The samples were analyzed for EPA method:
8310

Results: See the attached data tables for results.

Distribution of Reports:

1-CH2MHILL
Attn: Tatiana Romanova
Phone: (770) 604-9182

2-CH2MHILL
Attn: Amy Twitty
Phone: (850) 939-8300

Respectfully Submitted,

Brian Spann
Laboratory Manager
PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

4420 Pendola Point Road • Tampa, Florida 33619
(813) 247-2805 • FAX: (813) 248-1537

Cross-Reference sheet for SDG 2204044-Whiting Fld

	SDG	FieldID	SampleType	LabSampleID	SampleDescription
Whiting Fld	2204044	01116CSS01	N	220404402	011-16-CS-S-01
Whiting Fld	2204044	01116CSS02	N	220404403	011-16-CS-S-02
Whiting Fld	2204044	01116CSS02MS	MS	220404404	011-16-CS-S-02
Whiting Fld	2204044	01116CSS02SD	SD	220404405	011-16-CS-S-02
Whiting Fld	2204044	16PREEBEB01	EB	220404401	011-16-PREEB-EB-01
Whiting Fld	2204044	514BLK	MB	69113	514BLK
Whiting Fld	2204044	514BLKMS	BS	69115	514BLK
Whiting Fld	2204044	514BLKSD	BD	69116	514BLK
Whiting Fld	2204044	514LCS	BS	69114	514LCS
Whiting Fld	2204044	523BLK	MB	69268	523BLK
Whiting Fld	2204044	523LCS	BS	69269	523LCS

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METHOD 8310 HPLC PAH ORGANICS	4
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Organics

Organic Data Qualifiers

- U Indicates the analyte was analyzed for but not detected. The number adjacent to the "U" qualifier indicates the reporting limit for that analyte. The reporting limit can vary from sample to sample depending on dilution factors or the percent moisture adjustment when indicated.
- J Indicates estimated value. It is used when the data indicates the presence of an analyte above the method detection limit (MDL) yet lower than the reporting limit.
- B Indicates the analyte was found in the associated blank as well as in the sample. The notation indicates possible contamination of the sample.
- E Indicates the value reported is above the highest calibration standard for that analyte. The sample should be analyzed at an appropriate dilution. "E" qualified values are estimations and the diluted result may be reported on another Form 1.
- D Indicates the analyte has been identified in a dilution reanalysis. "D" qualifiers are used for samples that have been analyzed at a lesser dilution than required for accurate quantitation.
- C The "C" qualifier indicates the presence of this analyte has been confirmed by GC/MS analysis.
- P This qualifier is used for pesticide / Aroclor target analytes where there is greater than 25% difference for the detected concentration between the two GC columns. The lower of the two values is reported on Form 1 with a "P" qualifier.
- N This qualifier indicates presumptive evidence of an analyte. This qualifier is only used for tentatively identified compounds (TIC), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the "N" qualifier is not used.
- A This qualifier indicates that a TIC is a suspected aldol-condensation product.
- X Data flagged as rejected by analyst utilizing analytical judgement.

Organic Sample ID Qualifiers

The qualifiers that may be appended to the lab sample ID and/or the client sample ID for organic analysis are defined below:

- DL** Diluted reanalysis. Indicates that the results of the original analysis of the sample contained compounds that exceeded the calibration range. The sample was diluted and reanalyzed. May be followed by a digit to indicate multiple dilutions of the sample. The results of more than one diluted reanalysis may be reported.
- R** Reanalysis. The extract was reanalyzed without re-extraction. The "R" is not used if the sample was also re-extracted. May be followed by a digit to indicate multiple reanalysis of the sample at the same dilution.
- RE** Re-extracted. The extract was reanalyzed with re-extraction. May be followed by a digit to indicate multiple re-extraction of the same sample at the same dilution.
- MS** Matrix spike (may be followed by a digit to indicate multiple matrix within a sample set).
- SD** Matrix spike duplicate (may be followed by a digit to indicate multiple matrix spike duplicate within a sample set).

HPLC PAH ORGANICS
METHOD 8310

**CASE NARRATIVE
HPLC SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2204044

Client: CH2M Hill

I. RECEIPT

No exceptions were encountered unless a Sample Receipt Exception Report is attached to the Chain-of-Custody or a communication form is included in the addendum with this package.

II. HOLDING TIMES

A. Sample Preparation: All holding times were met.

B. Sample Analysis: All holding times were met.

III. METHODS

SW846/EPA 8310

IV. PREPARATION

Soil samples were prepared by SW846 EPA 3550 for 8310 semi-volatile analysis.
Water samples were prepared by SW846 EPA 3510 for 8310 semi-volatile analysis.

V. ANALYSIS

A. Calibration:

All acceptance criteria were met.

B. Blanks:

All acceptance criteria were met with the exception of:
Blank 514BLK was analyzed with the water samples extracted on 05/14/02. The following analyte(s) were detected above RL: Phenanthrene at 0.28 UG/L.
This blank was re-analyzed with similar results however only one analysis is included.
This analyte was not present in any of the samples associated with the blank. Therefore, no coding was required.

C. Surrogates:

All acceptance criteria were met.

D. Spikes:

1. Laboratory Control Spikes (LCS)

All acceptance criteria were met.

**CASE NARRATIVE
HPLC SEMIVOLATILE ORGANICS**

PEL Lab Reference No./SDG: 2204044

Client: CH2M Hill

Spikes Continued:

2. Matrix Spike/Matrix Spike Duplicate Samples (MS/SD)

A client requested MS/SD set was analyzed and a reagent MS/SD set was analyzed.

All percent recovery and relative percent difference(RPD) criteria were met with the exception of:

MS - 01116CSS02MS was analyzed with the soil samples extracted on 05/15/02. The following analyte(s) were recovered above criteria:

Acenaphthene at 266.9 % with criteria of (43-89). The MS sample was re-analyzed with similar results, however only one analysis is reported. Matrix interference was confirmed by Mass Spectral analysis of the parent sample, which verified that no Acenaphthene was present. (MS data not included) Since the surrogate met criteria, and the analyte was above criteria, no further action was taken.

SD - 01116CSS02SD was analyzed with the soil samples extracted on 05/15/02. The following analyte(s) were recovered above criteria:

Acenaphthene at 269 % with criteria of (43-89). The MSD sample was re-analyzed with similar results, however only one analysis is reported. Matrix interference was confirmed by Mass Spectral analysis of the parent sample, which verified that no Acenaphthene was present. (MS data not included) Since the surrogate met criteria, and the analyte was above criteria, no further action was taken.

E. Internal Standards:

This method does not require the use of internal standards.

F. Samples:

Sample analysis proceeded normally.

Project specific Reporting Limits were used per client request.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and PEL, both technically and for completeness, except for the conditions noted above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designated person, as, verified by the following signature.

SIGNED:  DATE: 5-28-02

PAH ORGANIC CROSS REFERENCE TABLE

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid
Lab Code : PEL Case No. SAS No: SDG No.: 2204044
Method: 8310

EPA Sample No

Lab Sample ID

<u>16PREEBEB01</u>	<u>220404401</u>
<u>01116CSS01</u>	<u>220404402</u>
<u>01116CSS02</u>	<u>220404403</u>

Sample Data

PAH ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 16PREEBEB01
 Lab Code: PEL Case No. SAS No: SDG No.: 2204044
 Matrix: WATER Lab Sample ID: 220404401 Lab File ID: 44-1.D
 Sample wt/vol: 960 Units: ML Date Received: 05/14/02
 Concentrated Extract Volume: 1 Date Extracted: 05/14/02
 Level:(low/med) LOW Date Analyzed: 05/15/02 Time: 0949
 PercentSolids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: Pre Equipment R Method: 8310
 GPC Cleanup: (Y/N) N pH:
 Column(1): Vydac 201TP54 ID: 4.6 (mm)
 CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	RESULT	Q
91-20-3	Naphthalene	0.21	U
208-96-8	Acenaphthylene	0.21	U
90-12-0	1-Methylnaphthalene	0.21	U
91-57-6	2-Methylnaphthalene	0.21	U
83-32-9	Acenaphthene	0.21	U
86-73-7	Fluorene	0.21	U
85-01-8	Phenanthrene	0.21	U
120-12-7	Anthracene	0.21	U
206-44-0	Fluoranthene	0.21	U
129-00-0	Pyrene	0.21	U
56-55-3	Benzo(a)anthracene	0.21	U
218-01-9	Chrysene	0.21	U
205-99-2	Benzo(b)fluoranthene	0.21	U
207-08-9	Benzo(k)fluoranthene	0.21	U
50-32-8	Benzo(a)pyrene	0.21	U
53-70-3	Dibenz(a,h)anthracene	0.21	U
191-24-2	Benzo(g,h,i)perylene	0.21	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.21	U

PAH ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01116CSS01
 Lab Code: PEL Case No. SAS No: SDG No.: 2204044
 Matrix: SOIL Lab Sample ID: 220404402 Lab File ID: 44-2.D
 Sample wt/vol: 33.09 Units: G Date Received: 05/14/02
 Concentrated Extract Volume: 1 Date Extracted: 05/15/02
 Level:(low/med) LOW Date Analyzed: 05/23/02 Time: 2317
 PercentSolids: 90.9 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: Bottom Confirm. Method: 8310
 GPC Cleanup: (Y/N) N pH:
 Column(1): Vydac 201TP54 ID: 4.6 (mm)
 CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
91-20-3	Naphthalene	6.7	U
208-96-8	Acenaphthylene	6.7	U
90-12-0	1-Methylnaphthalene	6.7	U
91-57-6	2-Methylnaphthalene	6.7	U
83-32-9	Acenaphthene	6.7	U
86-73-7	Fluorene	6.7	U
85-01-8	Phenanthrene	9.7	
120-12-7	Anthracene	6.7	U
206-44-0	Fluoranthene	40.4	
129-00-0	Pyrene	18.4	
56-55-3	Benzo(a)anthracene	17.9	
218-01-9	Chrysene	16.2	
205-99-2	Benzo(b)fluoranthene	18.3	
207-08-9	Benzo(k)fluoranthene	6.5	J
50-32-8	Benzo(a)pyrene	137	
53-70-3	Dibenz(a,h)anthracene	6.7	U
191-24-2	Benzo(g,h,i)perylene	22.1	
193-39-5	Indeno(1,2,3-cd)pyrene	15.1	

PAH ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01116CSS02
 Lab Code: PEL Case No. SAS No: SDG No.: 2204044
 Matrix: SOIL Lab Sample ID: 220404403 Lab File ID: 44-3.D
 Sample wt/vol: 33.09 Units: G Date Received: 05/14/02
 Concentrated Extract Volume: 1 Date Extracted: 05/15/02
 Level: (low/med) LOW Date Analyzed: 05/23/02 Time: 2351
 Percent Solids: 92.7 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: Bottom Confirm. Method: 8310
 GPC Cleanup: (Y/N) N pH:
 Column(1): Vydac 201TP54 ID: 4.6 (mm)
 CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
91-20-3	Naphthalene	6.6	U
208-96-8	Acenaphthylene	6.6	U
90-12-0	1-Methylnaphthalene	6.6	U
91-57-6	2-Methylnaphthalene	6.6	U
83-32-9	Acenaphthene	6.6	U
86-73-7	Fluorene	6.6	U
85-01-8	Phenanthrene	6.6	U
120-12-7	Anthracene	4	J
206-44-0	Fluoranthene	112	
129-00-0	Pyrene	86.1	
56-55-3	Benzo(a)anthracene	36.7	
218-01-9	Chrysene	43	
205-99-2	Benzo(b)fluoranthene	61.7	
207-08-9	Benzo(k)fluoranthene	27.3	
50-32-8	Benzo(a)pyrene	169	
53-70-3	Dibenz(a,h)anthracene	23.8	
191-24-2	Benzo(g,h,i)perylene	63.7	
193-39-5	Indeno(1,2,3-cd)pyrene	70.3	

Chain of Custody Documentation

Project # 2204-044

Client Information

Client: <u>Cham Hill</u>	Date Rec'd: <u>5/14/02</u>
Project: <u>Whiting Field CTO-011</u>	Due Date: _____
Log In Tech: <u>ZMK</u>	Rec'd via: Client <u>Crosstown</u> <u>FedEx</u>
Comments:	Other:

Sample Verification

	YES	NO		YES	NO
Samples/Cooler Secure?	<input checked="" type="checkbox"/>		All Samples on COC Accounted For?	<input checked="" type="checkbox"/>	
Samples Rec'd on Ice?	<input checked="" type="checkbox"/>		All Samples Rec'd Intact?	<input checked="" type="checkbox"/>	
Temperature WNL?	<input checked="" type="checkbox"/>		Sample Vol. Suff. For Analysis?	<input checked="" type="checkbox"/>	
Temperature of Samples(°C)	<u>4C</u>		Samples Rec'd W/I Hold Time?	<input checked="" type="checkbox"/>	
pH Verified?	<u>NA</u>		Are All Samples to be Analyzed?	<input checked="" type="checkbox"/>	
pH WNL?	<u>NA</u>		Correct Sample Containers?	<input checked="" type="checkbox"/>	
Soil Origin Domestic?	<input checked="" type="checkbox"/>		Soil Origin Foreign?		<input checked="" type="checkbox"/>

COC Verification

	YES	NO		YES	NO
Site Location/Project on COC?	<input checked="" type="checkbox"/>		Samplers Initials on COC?	<input checked="" type="checkbox"/>	
Client Project # on COC?	<input checked="" type="checkbox"/>		Sample Time/Date Indicated?	<input checked="" type="checkbox"/>	
Project Mgr. Indicated on COC?	<input checked="" type="checkbox"/>		TAT requested: <u>STD</u> <u>RUSH</u>		
COC Relinquished/Dated by Client?	<input checked="" type="checkbox"/>		Client Requests Verbal Results?		<input checked="" type="checkbox"/>
COC Received/Dated by PEL?	<input checked="" type="checkbox"/>		Client Requests Faxed Results?		<input checked="" type="checkbox"/>
			PEL to Conduct ALL Analyses?	<input checked="" type="checkbox"/>	
			Specific Subcontract Indicated?		

Subcontracted Analysis

Subcontractor:	Subcontractor:	Subcontractor:
Due Date:	Due Date:	Due Date:
Parameter:	Parameter:	Parameter:
Via: Crosstown FedEx	Via: Crosstown FedEx	Via: Crosstown FedEx
Tracking #:	Tracking #:	Tracking #:

CHam Hill / Whiting Field CTO-011 2204-044⁶³

Sample#	Parameter	Rel'd	Rec'd	Date	Time
01	8310(w)	✓	✓	5/14/02	14:00
01	8310(w)	✓	✓	5/24/02	11:45
02-05	8310(s)	✓	✓	5/15/02	2:40
02-05	8310(s)	✓	✓	5/15/02	2:00
02-05	Dry wt(s)	✓	✓	5/15/02	9:30
02-05	Dry wt(s)	✓	✓	5/15/02	12:00
02-05	8310(s)	✓	✓	5/23/02	12:15
02-05	8310(s)	✓	✓	5/23/02	17:00

Addendum

Sample Acknowledgement

Customer Name: CH2MHILL
Date & Time Received: 5-14-02, 10:43 AM
Date to be Reported: 5-28-02
Laboratory Submission Number/SDG: 2204044
Project: Whiting Field (Site 16)

Samples: The submission consisted of 5 samples with sample identification shown in the attached data tables.

Tests: The samples will be analyzed for EPA methods:
8310.

Sample Custody/COC discrepancies:
None.

Notes: Due to the number of characters in the sample identifier, PEL has truncated the ID's.

Distribution of Report to:

1-CH2MHILL
Attn: Amy Twitty
Phone: (850) 939-8300

2-CH2MHILL
Attn: Tatiana Romanova
Phone: (770) 604-9182

Respectfully Submitted,

PEL Laboratories, Inc.

Note: Submitted material will be retained for 30 days unless otherwise requested by client or consumed in analysis. PEL letters and reports are for the exclusive use of the client to whom they are addressed. Our letters and reports apply to the sample tested and are not necessarily indicative of the qualities of apparently identical or similar materials.

Log-in Report

Level: 3

Total of: 9 analyses on 5 samples (including QC)

14-May-02

Report/SDG #: 2204044

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
16FREEBEB01	220404401	Pre Equipment R	WQ	5/10/02 12:00:00 PM	5/14/02 10:43:00 AM
Method 8310	PAH			8310	

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
01116CSS01	220404402	Bottom Confirm.	S	5/10/02 12:20:00 PM	5/14/02 10:43:00 AM
Method 8310	PAH			8310	
Dry Weight	Dry Weight				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
01116CSS02	220404403	Bottom Confirm.	S	5/10/02 12:25:00 PM	5/14/02 10:43:00 AM
Method 8310	PAH			8310	
Dry Weight	Dry Weight				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
01116CSS02MS	220404404	Bottom Confirm.	SQ	5/10/02 12:25:00 PM	5/14/02 10:43:00 AM
Method 8310	PAH			8310	
Dry Weight	Dry Weight				

SampleID	LAB ID	StationID	Matrix	SampleDate	ReceiveDate
01116CSS02SD	220404405	Bottom Confirm.	SQ	5/10/02 12:25:00 PM	5/14/02 10:43:00 AM
Method 8310	PAH			8310	
Dry Weight	Dry Weight				

CH2MHILL Constructors, Inc.		115 Perimeter Center Place, Suite 700 Atlanta, GA 30346-1278 Tel No: (770) 604-9182 Fax No: (770) 604-9181		CHAIN-OF-CUSTODY RECORD		151168-020510-01		COC NUM:																																																																																								
PROJECT NAME:	Whiting Field	PROJECT NUMBER:	151168	LAB NAME AND CONTACT:	PEL Laboratories, 4420 Pendola Point Rd., Tampa, FL 33619	FAX AND MAIL REPORTS/EDD TO:	REC'D No. 2204	RECEIPT 1 (Name and Company):	Amy Twitty, CH2M Hill, Inc.																																																																																							
PROJECT PHASE/SITE/TASK:	16	CTO OR DO NUMBER:	CTO-0011	LAB PO NUMBER:	PO# 3234	FAX AND MAIL REPORTS/EDD TO:	REC'D No. 2204	RECEIPT 2 (Address, Tel No., and Fax No.):	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone-770-604-9182 Fax-770-604-9181																																																																																							
PROJECT TEL NO AND FAX NO:	850-939-8300 ext. 17	LAB TEL NO AND FAX NO:	(813) 247-2805	LAB TEL NO AND FAX NO:	(813) 247-2805	FAX AND MAIL REPORTS/EDD TO:	REC'D No. 2204	RECEIPT 3 (Address, Tel No., and Fax No.):	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone-770-604-9182 Fax-770-604-9181																																																																																							
<table border="1"> <thead> <tr> <th colspan="10">ANALYSES REQUIRED (Include Method Numbers)</th> </tr> <tr> <th>" SAMPLE IDENTIFIER</th> <th>" SAMPLE DESCRIPTION/LOCATION</th> <th>" MATRIX (see codes on SOP)</th> <th>" DATE COLLECTED</th> <th>" TIME COLLECTED</th> <th>" DATA PKG LEVEL (see codes on SOP)</th> <th>" TAT (calendar days)</th> <th>" PATHS by 8310</th> <th>" SAMPLE TYPE (see codes on SOP)</th> <th>" COMMENTS/SCREENING READINGS</th> <th>" LAB ID (for lab use)</th> </tr> </thead> <tbody> <tr> <td>011-16-PREB-EB-01</td> <td>Pre Equipment Rinse Blank</td> <td>W</td> <td>05/10/02</td> <td>1200</td> <td>C</td> <td>3</td> <td>1</td> <td>EB</td> <td>1 Amber Liter</td> <td>01</td> </tr> <tr> <td>011-16-CS-S-01</td> <td>Site 16 Bottom Confirm. Sample #1 2'-3'</td> <td>S</td> <td>05/10/02</td> <td>1220</td> <td>C</td> <td>2</td> <td>1</td> <td>N</td> <td>1 - 8oz. glass</td> <td>02</td> </tr> <tr> <td>011-16-CS-S-02</td> <td>Site 16 Bottom Confirm. Sample #2 2'-3'</td> <td>S</td> <td>05/10/02</td> <td>1225</td> <td>C</td> <td>2</td> <td>1</td> <td>N</td> <td>1 - 8oz. glass</td> <td>03</td> </tr> <tr> <td>011-16-CS-S-02-MS</td> <td>Site 16 Bottom Confirm. Sample #2 MS 2'-3'</td> <td>S</td> <td>05/10/02</td> <td>1225</td> <td>C</td> <td>2</td> <td>1</td> <td>MS</td> <td>1 - 8oz. glass</td> <td>04</td> </tr> <tr> <td>011-16-CS-S-02-MSD</td> <td>Site 16 Bottom Confirm. Sample #2 MSD 2'-3'</td> <td>S</td> <td>05/10/02</td> <td>1225</td> <td>C</td> <td>2</td> <td>1</td> <td>SD</td> <td>1 - 8oz. glass</td> <td>05</td> </tr> <tr> <td colspan="11"> <p>* per AT/5-14-02/1311 - Prelims are NOT required. TAT is 14 Days.</p> </td> </tr> </tbody> </table>										ANALYSES REQUIRED (Include Method Numbers)										" SAMPLE IDENTIFIER	" SAMPLE DESCRIPTION/LOCATION	" MATRIX (see codes on SOP)	" DATE COLLECTED	" TIME COLLECTED	" DATA PKG LEVEL (see codes on SOP)	" TAT (calendar days)	" PATHS by 8310	" SAMPLE TYPE (see codes on SOP)	" COMMENTS/SCREENING READINGS	" LAB ID (for lab use)	011-16-PREB-EB-01	Pre Equipment Rinse Blank	W	05/10/02	1200	C	3	1	EB	1 Amber Liter	01	011-16-CS-S-01	Site 16 Bottom Confirm. Sample #1 2'-3'	S	05/10/02	1220	C	2	1	N	1 - 8oz. glass	02	011-16-CS-S-02	Site 16 Bottom Confirm. Sample #2 2'-3'	S	05/10/02	1225	C	2	1	N	1 - 8oz. glass	03	011-16-CS-S-02-MS	Site 16 Bottom Confirm. Sample #2 MS 2'-3'	S	05/10/02	1225	C	2	1	MS	1 - 8oz. glass	04	011-16-CS-S-02-MSD	Site 16 Bottom Confirm. Sample #2 MSD 2'-3'	S	05/10/02	1225	C	2	1	SD	1 - 8oz. glass	05	<p>* per AT/5-14-02/1311 - Prelims are NOT required. TAT is 14 Days.</p>										
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Name and Signature: <i>[Signature]</i>		05/13/2002		1830		Name and Signature: <i>Michael A. Kuley</i>		5/14/02		10:43																																																																																						
Name and Signature: <i>[Signature]</i>						Name and Signature: <i>[Signature]</i>																																																																																										
Name and Signature: <i>[Signature]</i>						Name and Signature: <i>[Signature]</i>																																																																																										

- PEL LABS SAMPLE LOG IN SHEET

Project # 2204-044

Client Information

Client: <u>CHAM Hill</u>	Date Rec'd: <u>5/14/02</u>
Project: <u>Whiting Field CTO-011</u>	Due Date: _____
Log In Tech: <u>ZMK</u>	Rec'd via: Client <u>Crosstown FedEx</u>
Comments:	Other:

Sample Verification

	YES	NO		YES	NO
Samples/Cooler Secure?	✓		All Smples on COC Accounted For?	✓	
Samples Rec'd on Ice?	✓		All Samples Rec'd Intact?	✓	
Temperature WNL?	✓		Sample Vol. Suff. For Analysis?	✓	
Temperature of Samples(°C)	4C		Samples Rec'd W/I Hold Time?	✓	
pH Verified? N/A			Are All Samples to be Analyzed?	✓	
pH WNL? N/A			Correct Sample Containers?	✓	
Soil Origin Domestic?	✓		Soil Origin Foreign?		✓

COC Verification

	YES	NO		YES	NO
Site Location/Project on COC?	✓		Samplers Initials on COC?	✓	
Client Project # on COC?	✓		Sample Time/Date Indicated?	✓	
Project Mgr. Indicated on COC?	✓		TAT requested: <u>STD/RUSH</u>		
COC Relinquished/Dated by Client?	✓		Client Requests Verbal Results?		✓
COC Received/Dated by PEL?	✓		Client Requests Faxed Results?		✓
			PEL to Conduct ALL Analyses?	✓	
			Specific Subcontract Indicated?		

Subcontracted Analysis

Subcontractor:	Subcontractor:	Subcontractor:
Due Date:	Due Date:	Due Date:
Parameter:	Parameter:	Parameter:
Via: Crosstown FedEx	Via: Crosstown FedEx	Via: Crosstown FedEx
Tracking #:	Tracking #:	Tracking #:

Appendix F

Data Quality Evaluation

e*data, inc.

Environmental Data Management
& Chemistry Consulting Services

981001

July 3, 2002

Christelle Newsome
CH2M HILL Constructors, Inc.
115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346-1278

Subject: Data Validation Services for the NWS Whiting Field Site, Florida. Remedial Action Contract,
SoDiv; Contract No. N62467-98-D-0995. CTO #0011.

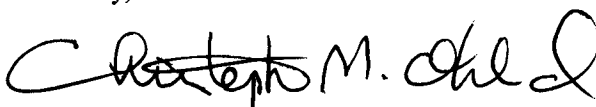
Dear Ms. Newsome,

Enclosed please find the data validation package for soil and water analyses, CTO #00 – NWS Whiting Field Site, Florida. A copy of the validated database file in comma-delimited variable (csv) file format has been emailed to your attention. Three additional fields were added for the validated results, validated qualifiers, and qualifier codes.

This report addresses three sample deliver groups (SDG) for the Whiting Field sampling effort. The SDGs are F11289, F12178, and F13055, which include data from Accutest work order numbers F11289, F11298, F11333, F12178, F12221, F13055, F13066 and PEL work order number 2204044. Mr. Chris Ohland, a senior data validator, conducted the data validation effort.

Please call me at (414) 475-5503 if you have any questions or need additional information.

Sincerely,



Christopher Ohland
Senior Environmental Chemist

Enclosures
CMO/jo

edata:020703LTR.doc

Data Validation Reference Package

Acronyms and Abbreviations

CCI	CH2MHILL Constructors, Inc.
COC	Chain-of-Custody
CTO	Contract Task Order
%D	Percent Difference
DUP	Duplicate
EDD	Electronic Data Deliverable
GC	Gas Chromatography
GS/MS	Gas Chromatography/Mass Spectroscopy
IDL	Instrument Detection Limit
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
NFG	Nation Functional Guidelines
%REC	Percent Recovery
QA	Quality Assurance
QC	Quality Control
RL	Reporting Limits
RPD	Relative Percent Difference
RSD	Relative Standard Deviation
SDG	Sample Delivery Group
TPH	Total Petroleum Hydrocarbons
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

Data Qualifier Reference Table

Final validated data were assigned qualifiers per USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (NFG). Table 1 presents all data qualifiers used in data validation for the NWS Whiting Field Florida -CTO#0011.

TABLE 1
EXAMPLE DATA QUALIFIER REFERENCE
(CTO#0011-NWS Whiting Field)

Qualifier	Inorganic	Organic
=	The parameter was detected at the reported concentration.	The parameter was detected at the reported concentration.
U	The parameter was analyzed for, but was not detected at a concentration greater than the laboratory report limit. For metals the IDL is used.	The parameter was analyzed for, but was not detected at a concentration greater than the laboratory reporting limit.
J	<p>The analyte was qualitatively identified and reported as an estimated concentration.</p> <p>The concentration is an estimate because the measurement is less than the laboratory reporting limit or presumed biased because the analysis is associated with quality control samples exhibiting a bias.</p>	<p>The analyte was qualitatively identified and reported as an estimated concentration.</p> <p>The concentration is an estimate because the measurement is less than the laboratory reporting limit or presumed biased because the analysis is associated with quality control samples exhibiting a bias.</p>

Qualification Code Reference Table

Qualification codes explain why data qualifiers have been applied and identify possible limitations of data use. Table 2 presents all data qualifier codes used in data validation for the NWS Whiting Field Florida -CTO#0011.

TABLE 2
EXAMPLE DATA QUALIFIER CODE REFERENCE
(CTO#0011-NWS Whiting Field)

Code	Inorganic	Organic
<	Concentration measurement is less than the laboratory limit of reporting, but greater than the method detection limit.	Concentration measurement is less than the laboratory limit of reporting, but greater than the method detection limit.
B	The B data qualifier was not used with this data set.	Parameter detected in the associated laboratory method or preparation blank. Presumed contamination.
E	The E data qualifier was not used with this data set.	The concentration value exceeds the upper limit of calibration for the applicable method.
M	The M data qualifier was not used with this data set.	Parameter is associated with a matrix spike or matrix spike duplicate sample that recovered outside the laboratory control limits.
P	The P data qualifier was not used with this data set.	Parameter is associated with a field or laboratory duplicate precision result that is outside the laboratory control limits.

Data Validation Report

Introduction

The Navy issued a task order to CH2M HILL Constructors, Inc. (CCI) to conduct soil sampling activities at the Whiting Field Site under Navy Remedial Action Contract, SoDiv; Contract No. N62467-98-D-0995. CTO #0011. This report describes the data validation services provided by E-Data Inc., in support of CCI project number 151168.

CCI collected soil and aqueous field quality control samples on three separate events. The first event occurred between October 22, 2001 and November 6, 2001. The second event occurred between January 30, 2002 and February 12, 2002. The last event occurred between April 29, 2002 and May 15, 2002. Samples were taken at 47 unique sampling locations. Field quality control samples include 4 field duplicate, 17 equipment rinsate, and 6 trip blank samples. The laboratory prepared project-specific samples for MS/MSD pair analyses where applicable for all organic and wet chemistry analyses.

A summary of the samples and required analyses is shown in Table 3.

Samples were submitted to either Accutest Laboratory located in Orlando, Florida or PEL located in Tampa, Florida. Analyses for total organic carbon were transferred to the Accutest facility located in New Jersey.

Laboratory data were validated using CCI-approved checklists based on the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review and USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. A copy of the laboratory reports with data qualifiers applied during the data validation and chain-of-custody forms are provided in Appendix A. Appendix B contains copies of the completed data validation checklists.

Approximately 76 percent of the sample results (100 percent of the soil results) from the final validated-laboratory reports were compared to the electronic data deliverable (EDD). Table C-1 (Appendix C) summarizes the 1212 sample results that were verified. The database contains 1600 results from regular, field duplicate, equipment blank, and trip blank samples. E-Data reports the following issues identified during the review of the EDD.

- The EDD [LabQualifier] field contained “=J” as an entry. These entries were updated to “J”
- The EDD contained data records for the VOC parameter name MTBE, which was not a required analyte. These records have been deleted from the EDD.
- The [AnalysisMethod] was null for some of the records associated with the wet chemistry parameter name Total Organic Carbon. The empty field was updated to SW9060.
- The [QAQCType] field is not updated with the correct type for field duplicate, equipment rinse blank, and trip blank samples. This field was not updated by E-Data.

- The [Analyte] field has a spelling error for Dibenzo(a,h)anthracene. The correct spelling is Dibenz(a,h)anthracene. The EDD entries were corrected.

This report addresses three sample deliver groups (SDG) for the Whiting Field sampling effort. The SDGs are F11289, F12178, and F13055, which include data from Accutest work order numbers F11289, F11298, F11333, F12178, F12221, F13055, F13066 and PEL work order number 2204044. Mr. Chris Ohland, a senior data validator, conducted the data validation effort.

Data Validation Findings Summary

This section presents a summary of the data validation findings of the data reviewer.

Volatile Organic Analyses

The number and type of deficiencies that were discovered and documented during the data validation of volatile organic analyses was minimal.

Poor field precision between duplicate samples F11289-4/-5 and F13055-14/-17 was observed for ethylbenzene and xylene. The results of the primary sample and its duplicate are qualified as estimated and flagged "J."

The MS/MSD recoveries for ethylbenzene and xylene were below the lower control limit. The presence of these parameters in the primary sample may have interfered with the analyses. The results of the primary sample have been qualified as estimated and flagged "J" for ethylbenzene and xylene.

COC No. 151168-020205-01 and 151168-020205-02 are not properly relinquished by the field team.

PAH Analyses

Second column confirmation was not performed as specified in the laboratory statement of work. Instead, the laboratory performed confirmation by spectrum match using a diode array detector at two different wavelengths.

Quantifications were calculated from the primary detector response, unless in the analyst judgment the measurement was biased. Higher concentrations may be measured and reported from the secondary detector response if a more conservative concentration is required.

The laboratory sample receipt form indicates that sample 011-04-POSTEB-W-01-03 was listed twice and that the bottles were labeled at 16:30 and 17:35. There is no notice that CCI was notified and that the discrepancy was resolved.

MS/MSD analyses performed on PEL sample ID 2204044-02 found in SDG# 2204044 were above the upper recovery control limits for acenaphthene. No action was taken to qualify the sample results because acenaphthene was not detected in any of the associated samples.

For sample F13055-05 the 2-methynaphthalene report limit is elevated due to matrix interference.

Sample extracts were diluted prior to the analysis to properly quantify target parameters in sample F12178-05 and -06. The nominal report limits were not achieved for these samples.

The matrix spike and matrix spike duplicate analyses performed on sample F12178-5 were outside the established accuracy control limits. Native concentration levels in the sample masked the spike levels in 15 of the 21 deficiencies. The remaining 6 deficiencies are likely attributed to co-eluting interferences. All detected results in sample F12178-05 are qualified as estimates and flagged "J"

The container for sample F11298-02, an equipment rinse blank, was found broken upon sample receipt. The containers for sample F13066-06, a trip blank, were not received in the cooler shipment. Sample analyses could not be conducted for the samples.

TPH (Florida PRO) Analyses

Several of the gas chromatograms indicate the potential presence of two types of hydrocarbon products. Both an early and late eluting profile is present in the analysis. In some of these instances a small portion of total petroleum hydrocarbons (TPH) elutes earlier than the starting time for integrating TPH and is not included in the total measurement.

Matrix spike and matrix spike duplicate recoveries are above the upper control limit in sample F12178-05. Primary sample concentrations (936 mg/Kg) are much greater than the amount of TPH fortified (32.5 mg/Kg) in the sample. The percent recovery data is inconclusive. No action is taken to qualify the sample results.

The laboratory suspected the surrogate in sample F12221-08 was double spiked. The laboratory took no corrective action steps to investigate the apparent error. No action was taken because the accuracy bias is high and target parameters are not detected in the analysis.

The pre-equipment rinse blank sample (F12178-01) contains TPH (C8-C40) at 0.445 mg/L. Action levels were calculated based on the 5X Rule. For soil samples a correction factor of 330X was applied (74 mg/Kg). Sample results for F12178-2, F12178-3, F12178-4, F12178-6, F12178-7, F12178-8, and F12178-9 are less than the action level and have been qualified as non-detected and flagged "U."

The aqueous equipment rinse samples associated with Accutest work order nos., F11289, F11298, and F11333 were not field preserved. Under the Florida PRO protocol all aqueous samples should be preserved with HCl at the time of sample collection. Instead, unpreserved aqueous samples were sent from the field to the laboratory. The laboratory preserved the samples at the time of sample extraction. Because the aqueous samples are field equipment rinse sample the loss of TPH due to biodegradation is not expected to be significant. No action was taken to qualify the sample results.

Wet Chemistry Analyses

No deficiencies were noted in the review.

Technical Validity and Usability

The analytical performance of this data set is very strong. The analytical results meet the data quality objectives defined by the applicable method and NFG, except as noted in the data validation findings. Data completeness is calculated at 100 percent valid data.

Summary of Qualified Data

A summary of the data qualified during the data validation exercise is summarized in Table 4.

Table 3

SUMMARY OF PROJECT SAMPLES AND REQUESTED ANALYSES

(CTO#0011-NWS Whiting Field)

Lab Sample ID	Field ID	QAQC TYPE	Sample Date	Receive Date	Matrix	M8016D (FL PRO)	SW8021B	SW8260B	SW8310	SW8060
220404401	16PREEBEB01	EB	5/10/2002	05/14/02	WATER				18	
220404402	01116CSS01	N	5/10/2002	05/14/02	SOIL				18	
220404403	01116CSS02	N	5/10/2002	05/14/02	SOIL				18	
F11289-1	011-04-PREEB-W-01-Q1	EB	10/22/2001	10/23/01	WATER	1		4	18	
F11289-2	011-04-BKGD-S-22'-Q1	N	10/22/2001	10/23/01	SOIL	1		4	18	1
F11289-3	011-04-BKGD-S-43'-Q1	N	10/22/2001	10/23/01	SOIL	1		4	18	1
F11289-4	011-04-MP-30E-S-18'-	N	10/22/2001	10/23/01	SOIL	1		4	18	1
F11289-5	011-04-MP-30E-S-30'-	FD	10/22/2001	10/23/01	SOIL	1		4	18	1
F11289-6	011-04-MP-30E-S-43'-	N	10/22/2001	10/23/01	SOIL	1		4	18	1
F11289-7	011-04-POSTEB-W-01-Q	EB	10/22/2001	10/23/01	WATER	1		4	18	
F11289-8	011-04-TRIPB-W-01-Q1	TB	10/22/2001	10/23/01	WATER			4		
F11298-1	011-04-TRIPB-W-02-Q1	TB	10/23/2001	10/24/01	WATER			4		
F11298-2	011-04-PREEB-W-02-Q1	EB	10/23/2001	10/24/01	WATER	1		4		
F11298-3	011-04-MP-30E-S-72'-	N	10/23/2001	10/24/01	SOIL	1		4	18	1
F11298-4	011-04-BKGD-S-72'-Q1	N	10/23/2001	10/24/01	SOIL	1		4	18	1
F11298-5	011-04-MP-10N-S-18-Q	N	10/23/2001	10/24/01	SOIL	1		4	18	1
F11298-6	011-04-MP-10N-S-38-Q	N	10/23/2001	10/24/01	SOIL	1		4	18	1
F11298-7	011-04-POSTEB-W-02-Q	EB	10/23/2001	10/24/01	WATER	1		4	18	
F11333-1	011-04-TRIPB-W-03-Q1	TB	10/25/2001	10/27/01	WATER			4		
F11333-2	011-04-PREEB-W-03-Q1	EB	10/25/2001	10/27/01	WATER	1		4	18	
F11333-3	011-04-MP-5N-S-66'-Q	N	10/25/2001	10/27/01	SOIL	1		4	18	1
F11333-4	011-04-MP-10W-S-18-Q	N	10/25/2001	10/27/01	SOIL	1		4	18	1
F11333-5	011-04-MP-10W-S-43-Q	N	10/25/2001	10/27/01	SOIL	1		4	18	1
F11333-6	011-04-MP-20S-S-18-Q	N	10/26/2001	10/27/01	SOIL	1		4	18	1
F11333-7	011-04-MP-20S-S-43-Q	N	10/26/2001	10/27/01	SOIL	1		4	18	1
F11333-8	011-04-MP-20S-S-72-Q	N	10/26/2001	10/27/01	SOIL	1		4	18	1
F11333-9	011-04-MP-10W-S-72-Q	N	10/26/2001	10/27/01	SOIL	1		4	18	1
F11333-10	011-04-POSTEB-W-03-Q	EB	10/26/2001	10/27/01	WATER	1		4	18	
F12178-1	011-04-PREEB-W-01-Q2	EB	1/30/2002	01/31/02	WATER	1	4		18	
F12178-11	011-04-TRIPB-W-01-Q2	TB	1/30/2002	01/31/02	WATER		4			
F12178-2	011-04-MP-10W-S-18'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-3	011-04-MP-10W-S-43'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-4	011-04-MP-10W-S-72'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-5	011-04-MP-05N-S-18'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-6	011-04-MP-05N-S-38'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-7	011-04-MP-05N-S-66'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-8	011-04-MP-30E-S-18'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-9	011-04-MP-30E-S-43'-	N	1/30/2002	01/31/02	SOIL	1		4	18	1
F12178-10	011-04-POSTEB-W-01-Q	EB	1/30/2002	01/31/02	WATER	1	4		18	
F12221-1	011-04-PREEB-W-02-Q2	EB	2/4/2002	02/05/02	WATER	1	4		18	
F12221-2	011-04-MP-30E-S-72'-	N	2/4/2002	02/05/02	SOIL	1		4	18	1
F12221-3	011-04-BKGD-S-22'-Q2	N	2/4/2002	02/05/02	SOIL	1		4	18	1
F12221-4	011-04-BKGD-S-43'-Q2	N	2/4/2002	02/05/02	SOIL	1		4	18	1
F12221-5	011-04-BKGD-S-72'-Q2	N	2/4/2002	02/05/02	SOIL	1		4	18	1
F12221-6	011-04-MP-20S-S-18'-	N	2/4/2002	02/05/02	SOIL	1		4	18	1
F12221-7	011-04-MP-20S-S-43'-	N	2/4/2002	02/05/02	SOIL	1		4	18	1
F12221-8	011-04-MP-20S-S-72'-	N	2/4/2002	02/05/02	SOIL	1		4	18	1
F12221-9	011-04-MP-20S-S-100'	FD	2/4/2002	02/05/02	SOIL	1		4	18	1

Table 3

SUMMARY OF PROJECT SAMPLES AND REQUESTED ANALYSES

(CTO#0011-NWS Whiting Field)

Lab Sample ID	Field ID	QAQC TYPE	Sample Date	Receive Date	Matrix	M8016D (FL PRO)	SW8021B	SW8260B	SW8310	SW9060
F12221-10	011-04-POSTEB-W-02-Q	EB	2/4/2002	02/05/02	WATER	1	4		18	
F12221-11	011-04-TRIPB-W-02-Q2	TB	2/4/2002	02/05/02	WATER		4			
F13055-1	011-04-PREEB-W-01-Q3	EB	4/29/2002	05/01/02	WATER	1	4		18	
F13055-2	011-04-BKGD-S-22'-Q3	N	4/29/2002	05/01/02	SOIL	1		4	18	1
F13055-3	011-04-BKGD-S-43'-Q3	N	4/29/2002	05/01/02	SOIL	1		4	18	1
F13055-4	011-04-BKGD-S-72'-Q3	N	4/29/2002	05/01/02	SOIL	1		4	18	1
F13055-5	011-04-MP-30E-S-18'-	N	4/29/2002	05/01/02	SOIL	1		4	18	1
F13055-6	011-04-MP-30E-S-43'-	N	4/29/2002	05/01/02	SOIL	1		4	18	1
F13055-7	011-04-POSTEB-W-01-Q	EB	4/29/2002	05/01/02	WATER	1	4		18	
F13055-8	011-04-PREEB-W-02-Q3	EB	4/30/2002	05/01/02	WATER	1	4		18	
F13055-9	011-04-MP-30E-S-72'-	N	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-10	011-04-MP-FD1-S-100'	FD	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-11	011-04-MP-05N-S-18'-	N	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-12	011-04-MP-05N-S-38'-	N	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-13	011-04-MP-05N-S-66'-	N	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-14	011-04-MP-10W-S-18'-	N	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-15	011-04-MP-10W-S-43'-	N	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-16	011-04-MP-10W-S-72'-	N	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-17	011-04-MP-FD2-S-100'	FD	4/30/2002	05/01/02	SOIL	1		4	18	1
F13055-18	011-04-POSTEB-W-01-Q	EB	4/30/2002	05/01/02	WATER	1	4		18	
F13055-19	011-04-TRIPB-W-01-Q3	TB	4/30/2002	05/01/02	WATER		4			
F13066-1	011-04-PREEB-W-03-Q3	EB	5/1/2002	05/02/02	WATER	1			18	
F13066-2	011-04-MP-20S-S-18'-	N	5/1/2002	05/02/02	SOIL	1		4	18	1
F13066-3	011-04-MP-30E-S-43'-	N	5/1/2002	05/02/02	SOIL	1		4	18	1
F13066-4	011-04-MP-30E-S-72'-	N	5/1/2002	05/02/02	SOIL	1		4	18	1
F13066-5	011-04-POSTEB-W-01-Q	EB	5/1/2002	05/02/02	WATER	1	4		18	

Table 3

SUMMARY OF PROJECT SAMPLES AND REQUESTED ANALYSES

(CTO#0011-NWS Whiting Field)

Lab Sample ID	Field ID	QAQC TYPE	Sample Date	Receive Date	Matrix	IN8015D (FL PRO)	SW8021B	SW8260B	SW8310	SW9060
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(CTO#0011-NWS Whiting Field)

Lab	Field ID	QAQC	Sample	Receive	Matrix	M8015D (FL PRO)	SW8021B	SW8260B	SW8310	SW8060
Sample ID		TYPE	Date	Date						

Table 4

SUMMARY OF QUALIFIED RESULTS

(CTO#0059 - Albany Round 4 Groundwater)

Lab Sample ID	FieldID	Analysis Method	Analyte	Result	Lab Qual	Valid Result	Valid Qual	Qual Code
220404402	01116CSS01	SW8310	Benzo(k)fluoranthene	6.5 F		6.5 J		<
220404403	01116CSS02	SW8310	Anthracene	4 F		4 J		<
F11289-2	011-04-BKGD-S-22'-Q1	SW8310	Benzo(a)pyrene	68.7 J		68.7 J		<
F11289-2	011-04-BKGD-S-22'-Q1	SW8310	Benzo(b)fluoranthene	48.3 J		48.3 J		<
F11289-2	011-04-BKGD-S-22'-Q1	SW8310	Benzo(k)fluoranthene	39.7 J		39.7 J		<
F11289-2	011-04-BKGD-S-22'-Q1	SW8310	Fluoranthene	235 J		235 J		<
F11289-2	011-04-BKGD-S-22'-Q1	SW8310	Phenanthrene	144 J		144 J		<
F11289-2	011-04-BKGD-S-22'-Q1	SW8310	Pyrene	245 J		245 J		<
F11289-2	011-04-BKGD-S-22'-Q1	SW8260B	Toluene	112 J		112 J		<
F11289-3	011-04-BKGD-S-43'-Q1	SW8310	Benzo(b)fluoranthene	48.8 J		48.8 J		<
F11289-3	011-04-BKGD-S-43'-Q1	SW8310	Benzo(g,h,i)perylene	36.3 J		36.3 J		<
F11289-3	011-04-BKGD-S-43'-Q1	SW8310	Benzo(k)fluoranthene	37.8 J		37.8 J		<
F11289-3	011-04-BKGD-S-43'-Q1	SW8310	Indeno(1,2,3-cd)pyrene	35.2 J		35.2 J		<
F11289-3	011-04-BKGD-S-43'-Q1	SW8310	Phenanthrene	342 J		342 J		<
F11289-4	011-04-MP-30E-S-18'-	SW8310	Dibenz(a,h)anthracene	43.9 J		43.9 J		<
F11289-4	011-04-MP-30E-S-18'-	SW8260B	Ethylbenzene	38400 =		38400 J		P
F11289-4	011-04-MP-30E-S-18'-	SW8310	Fluorene	262 J		262 J		<
F11289-4	011-04-MP-30E-S-18'-	SW8260B	Xylene (total)	91000 =		91000 J		P
F11289-5	011-04-MP-30E-S-30'-	SW8310	Dibenz(a,h)anthracene	39.9 J		39.9 J		<
F11289-5	011-04-MP-30E-S-30'-	SW8260B	Ethylbenzene	15900 =		15900 J		P
F11289-5	011-04-MP-30E-S-30'-	SW8310	Fluorene	306 J		306 J		<
F11289-5	011-04-MP-30E-S-30'-	SW8260B	Toluene	118 J		118 J		<
F11289-5	011-04-MP-30E-S-30'-	SW8260B	Xylene (total)	38800 =		38800 J		P
F11289-6	011-04-MP-30E-S-43'-	SW8310	Benzo(a)pyrene	43.9 J		43.9 J		<
F11289-6	011-04-MP-30E-S-43'-	SW8310	Benzo(b)fluoranthene	33.8 J		33.8 J		<
F11289-6	011-04-MP-30E-S-43'-	SW8310	Fluoranthene	242 J		242 J		<
F11289-6	011-04-MP-30E-S-43'-	SW8310	Phenanthrene	153 J		153 J		<
F11289-6	011-04-MP-30E-S-43'-	SW8310	Pyrene	204 J		204 J		<
F11289-6	011-04-MP-30E-S-43'-	SW8260B	Toluene	219 J		219 J		<
F11298-3	011-04-MP-30E-S-72'-	SW8310	Fluoranthene	266 J		266 J		<
F11298-3	011-04-MP-30E-S-72'-	SW8310	Phenanthrene	213 J		213 J		<
F11298-3	011-04-MP-30E-S-72'-	SW8310	Pyrene	212 J		212 J		<
F11298-4	011-04-BKGD-S-72'-Q1	SW8310	Fluoranthene	245 J		245 J		<
F11298-4	011-04-BKGD-S-72'-Q1	SW8310	Phenanthrene	203 J		203 J		<
F11298-4	011-04-BKGD-S-72'-Q1	SW8310	Pyrene	197 J		197 J		<
F11298-5	011-04-MP-10N-S-18-Q	SW8310	Acenaphthene	1870 J		1870 J		<
F11298-5	011-04-MP-10N-S-18-Q	SW8310	Benzo(g,h,i)perylene	257 J		257 J		<
F11298-5	011-04-MP-10N-S-18-Q	SW8260B	Toluene	38.2 J		240 U		*
F11298-6	011-04-MP-10N-S-38-Q	SW8310	Benzo(g,h,i)perylene	36.2 J		36.2 J		<
F11298-6	011-04-MP-10N-S-38-Q	SW8310	Chrysene	312 J		312 J		<
F11298-6	011-04-MP-10N-S-38-Q	SW8310	Indeno(1,2,3-cd)pyrene	40.4 J		40.4 J		<
F11298-6	011-04-MP-10N-S-38-Q	SW8260B	Toluene	344 J		344 J		E
F11333-3	011-04-MP-5N-S-66'-Q	SW8310	Fluorene	292 J		292 J		<
F11333-4	011-04-MP-10W-S-18-Q	SW8310	Benzo(a)pyrene	62.5 J		62.5 J		<
F11333-4	011-04-MP-10W-S-18-Q	SW8310	Benzo(b)fluoranthene	36.3 J		36.3 J		<
F11333-4	011-04-MP-10W-S-18-Q	SW8310	Fluoranthene	252 J		252 J		<
F11333-4	011-04-MP-10W-S-18-Q	SW8310	Pyrene	240 J		240 J		<
F11333-4	011-04-MP-10W-S-18-Q	SW8260B	Xylene (total)	252 J		252 J		<
F11333-5	011-04-MP-10W-S-43-Q	SW8310	Benzo(a)pyrene	42.2 J		42.2 J		<
F11333-5	011-04-MP-10W-S-43-Q	SW8310	Fluoranthene	235 J		235 J		<

Table 4

SUMMARY OF QUALIFIED RESULTS

(CTO#0059 - Albany Round 4 Groundwater)

Lab Sample ID	FieldID	Analysis Method	Analyte	Result	Lab Qual	Valid Result	Valid Qual	Qual Code
F11333-5	011-04-MP-10W-S-43-Q	SW8310	Pyrene	193 J		193 J		<
F11333-8	011-04-MP-20S-S-72-Q	SW8310	Benzo(a)pyrene	40.9 J		40.9 J		<
F11333-8	011-04-MP-20S-S-72-Q	SW8310	Benzo(b)fluoranthene	40 J		40 J		<
F11333-8	011-04-MP-20S-S-72-Q	SW8310	Benzo(k)fluoranthene	34.4 J		34.4 J		<
F11333-8	011-04-MP-20S-S-72-Q	SW8310	Phenanthrene	294 J		294 J		<
F11333-8	011-04-MP-20S-S-72-Q	SW8310	Pyrene	302 J		302 J		<
F11333-9	011-04-MP-10W-S-72-Q	SW8310	Benzo(a)pyrene	53 J		53 J		<
F11333-9	011-04-MP-10W-S-72-Q	SW8310	Benzo(b)fluoranthene	40.7 J		40.7 J		<
F11333-9	011-04-MP-10W-S-72-Q	SW8310	Benzo(k)fluoranthene	35 J		35 J		<
F11333-9	011-04-MP-10W-S-72-Q	SW8310	Pyrene	174 J		174 J		<
F12178-2	011-04-MP-10W-S-18'	SW8310	Benzo(a)anthracene	161 J		161 J		<
F12178-2	011-04-MP-10W-S-18'	SW8310	Benzo(b)fluoranthene	54.4 J		54.4 J		<
F12178-2	011-04-MP-10W-S-18'	SW8310	Benzo(k)fluoranthene	42.3 J		42.3 J		<
F12178-2	011-04-MP-10W-S-18'	SW8310	Phenanthrene	352 J		352 J		<
F12178-2	011-04-MP-10W-S-18'	M8015D	TPH (C8-C40)	16.1 =		16.1 U		B
F12178-3	011-04-MP-10W-S-43'	SW8310	Benzo(a)pyrene	55.5 J		55.5 J		<
F12178-3	011-04-MP-10W-S-43'	SW8310	Benzo(b)fluoranthene	48.5 J		48.5 J		<
F12178-3	011-04-MP-10W-S-43'	SW8310	Benzo(k)fluoranthene	44.5 J		44.5 J		<
F12178-3	011-04-MP-10W-S-43'	SW8310	Pyrene	178 J		178 J		<
F12178-3	011-04-MP-10W-S-43'	M8015D	TPH (C8-C40)	10.3 =		10.3 U		B
F12178-4	011-04-MP-10W-S-72'	SW8260B	Benzene	120 J		120 J		<
F12178-4	011-04-MP-10W-S-72'	SW8310	Benzo(a)pyrene	69.6 J		69.6 J		<
F12178-4	011-04-MP-10W-S-72'	SW8310	Benzo(b)fluoranthene	52.7 J		52.7 J		<
F12178-4	011-04-MP-10W-S-72'	SW8310	Benzo(k)fluoranthene	49.8 J		49.8 J		<
F12178-4	011-04-MP-10W-S-72'	SW8260B	Ethylbenzene	205 J		205 J		<
F12178-4	011-04-MP-10W-S-72'	SW8310	Fluoranthene	271 J		271 J		<
F12178-4	011-04-MP-10W-S-72'	SW8310	Pyrene	263 J		263 J		<
F12178-4	011-04-MP-10W-S-72'	M8015D	TPH (C8-C40)	14.9 =		14.9 U		B
F12178-4	011-04-MP-10W-S-72'	SW8260B	Xylene (total)	436 J		436 J		<
F12178-5	011-04-MP-05N-S-18'	SW8310	2-Methylnaphthalene	7920 J		7920 J		<M
F12178-5	011-04-MP-05N-S-18'	SW8310	Acenaphthene	20400 J		20400 J		<M
F12178-5	011-04-MP-05N-S-18'	SW8310	Anthracene	27700 =		27700 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Benzo(a)anthracene	30200 =		30200 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Benzo(a)pyrene	13000 =		13000 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Benzo(b)fluoranthene	7260 =		7260 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Benzo(g,h,i)perylene	3050 J		3050 J		<M
F12178-5	011-04-MP-05N-S-18'	SW8310	Benzo(k)fluoranthene	6170 =		6170 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Chrysene	17400 =		17400 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Dibenz(a,h)anthracene	913 J		913 J		<M
F12178-5	011-04-MP-05N-S-18'	SW8310	Fluoranthene	119000 =		119000 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Fluorene	17400 =		17400 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Indeno(1,2,3-cd)pyrene	3460 =		3460 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Phenanthrene	106000 =		106000 J		M
F12178-5	011-04-MP-05N-S-18'	SW8310	Pyrene	92900 =		92900 J		M
F12178-6	011-04-MP-05N-S-38'	SW8310	Acenaphthene	709 J		709 J		<
F12178-6	011-04-MP-05N-S-38'	SW8260B	Benzene	3.6 J		3.6 J		<
F12178-6	011-04-MP-05N-S-38'	SW8310	Benzo(g,h,i)perylene	132 J		132 J		<
F12178-6	011-04-MP-05N-S-38'	SW8310	Fluorene	670 J		670 J		<
F12178-6	011-04-MP-05N-S-38'	M8015D	TPH (C8-C40)	67.3 =		67.3 U		B
F12178-7	011-04-MP-05N-S-66'	SW8310	Fluoranthene	204 J		204 J		<

Table 4

SUMMARY OF QUALIFIED RESULTS

(CTO#0059 - Albany Round 4 Groundwater)

Lab Sample ID	FieldID	Analysis Method	Analyte	Result	Lab Qual	Valid Result	Valid Qual	Qual Code
F12178-7	011-04-MP-05N-S-66'	SW8310	Pyrene	168 J		168 J		<
F12178-7	011-04-MP-05N-S-66'	M8015D	TPH (C8-C40)	6.91 J		8.6 U		B
F12178-7	011-04-MP-05N-S-66'	SW8260B	Xylene (total)	703 J		703 J		<
F12178-8	011-04-MP-30E-S-18'	SW8310	Benzo(a)pyrene	63.8 J		63.8 J		<
F12178-8	011-04-MP-30E-S-18'	SW8310	Benzo(b)fluoranthene	45.4 J		45.4 J		<
F12178-8	011-04-MP-30E-S-18'	SW8310	Benzo(k)fluoranthene	41.6 J		41.6 J		<
F12178-8	011-04-MP-30E-S-18'	M8015D	TPH (C8-C40)	40.9 =		40.9 U		B
F12178-9	011-04-MP-30E-S-43'	SW8310	Benzo(a)pyrene	60.4 J		60.4 J		<
F12178-9	011-04-MP-30E-S-43'	SW8310	Benzo(b)fluoranthene	43.3 J		43.3 J		<
F12178-9	011-04-MP-30E-S-43'	SW8310	Benzo(k)fluoranthene	42.5 J		42.5 J		<
F12178-9	011-04-MP-30E-S-43'	SW8260B	Ethylbenzene	103 J		103 J		<
F12178-9	011-04-MP-30E-S-43'	SW8260B	Toluene	94.2 J		94.2 J		<
F12178-9	011-04-MP-30E-S-43'	M8015D	TPH (C8-C40)	23.8 =		23.8 U		B
F12178-9	011-04-MP-30E-S-43'	SW8260B	Xylene (total)	238 J		238 J		<
F12221-2	011-04-MP-30E-S-72'	SW8260B	Ethylbenzene	4.7 J		4.7 J		<
F12221-2	011-04-MP-30E-S-72'	SW8310	Fluoranthene	180 J		180 J		<
F12221-2	011-04-MP-30E-S-72'	SW8310	Phenanthrene	149 J		149 J		<
F12221-2	011-04-MP-30E-S-72'	SW8310	Pyrene	139 J		139 J		<
F12221-2	011-04-MP-30E-S-72'	M8015D	TPH (C8-C40)	7.41 J		7.41 J		<
F12221-2	011-04-MP-30E-S-72'	SW8260B	Xylene (total)	15.2 J		15.2 J		<
F12221-3	011-04-BKGD-S-22'-Q2	SW8310	Benzo(b)fluoranthene	53.1 J		53.1 J		<
F12221-3	011-04-BKGD-S-22'-Q2	SW8310	Benzo(g,h,i)perylene	36.9 J		36.9 J		<
F12221-3	011-04-BKGD-S-22'-Q2	SW8310	Benzo(k)fluoranthene	42.1 J		42.1 J		<
F12221-3	011-04-BKGD-S-22'-Q2	SW8310	Fluoranthene	310 J		310 J		<
F12221-3	011-04-BKGD-S-22'-Q2	SW8310	Indeno(1,2,3-cd)pyrene	37 J		37 J		<
F12221-3	011-04-BKGD-S-22'-Q2	SW8310	Phenanthrene	250 J		250 J		<
F12221-3	011-04-BKGD-S-22'-Q2	SW8310	Pyrene	266 J		266 J		<
F12221-3	011-04-BKGD-S-22'-Q2	M8015D	TPH (C8-C40)	8.53 J		8.53 J		<
F12221-4	011-04-BKGD-S-43'-Q2	SW8310	Benzo(b)fluoranthene	61.8 J		61.8 J		<
F12221-4	011-04-BKGD-S-43'-Q2	SW8310	Benzo(g,h,i)perylene	43.6 J		43.6 J		<
F12221-4	011-04-BKGD-S-43'-Q2	SW8310	Benzo(k)fluoranthene	45.8 J		45.8 J		<
F12221-4	011-04-BKGD-S-43'-Q2	SW8310	Fluoranthene	358 J		358 J		<
F12221-4	011-04-BKGD-S-43'-Q2	SW8310	Phenanthrene	303 J		303 J		<
F12221-4	011-04-BKGD-S-43'-Q2	SW8310	Pyrene	306 J		306 J		<
F12221-5	011-04-BKGD-S-72'-Q2	SW8310	Benzo(a)anthracene	221 J		221 J		<
F12221-5	011-04-BKGD-S-72'-Q2	SW8310	Benzo(g,h,i)perylene	62.3 J		62.3 J		<
F12221-5	011-04-BKGD-S-72'-Q2	SW8310	Chrysene	248 J		248 J		<
F12221-5	011-04-BKGD-S-72'-Q2	SW8310	Indeno(1,2,3-cd)pyrene	40.6 J		40.6 J		<
F12221-7	011-04-MP-20S-S-43'	M8015D	TPH (C8-C40)	8.09 J		8.09 J		<
F12221-8	011-04-MP-20S-S-72'	SW8260B	Ethylbenzene	1.1 J		1.1 J		<
F12221-8	011-04-MP-20S-S-72'	SW8260B	Xylene (total)	5.7 J		5.7 J		<
F12221-9	011-04-MP-20S-S-100'	SW8260B	Ethylbenzene	2.9 J		2.9 J		<
F12221-9	011-04-MP-20S-S-100'	SW8260B	Xylene (total)	3 J		3 J		<
F13055-10	011-04-MP-FD1-S-100'	SW8310	Acenaphthene	268 J		268 J		<
F13055-10	011-04-MP-FD1-S-100'	SW8310	Anthracene	279 J		279 J		<
F13055-10	011-04-MP-FD1-S-100'	SW8310	Benzo(a)anthracene	324 J		324 J		<
F13055-10	011-04-MP-FD1-S-100'	SW8310	Benzo(g,h,i)perylene	49.2 J		49.2 J		<
F13055-10	011-04-MP-FD1-S-100'	SW8310	Chrysene	308 J		308 J		<
F13055-10	011-04-MP-FD1-S-100'	SW8310	Fluorene	272 J		272 J		<
F13055-10	011-04-MP-FD1-S-100'	SW8310	Indeno(1,2,3-cd)pyrene	43.4 J		43.4 J		<

Table 4

SUMMARY OF QUALIFIED RESULTS

(CTO#0059 - Albany Round 4 Groundwater)

Lab Sample ID	FieldID	Analysis Method	Analyte	Result	Lab Qual	Valid Result	Valid Qual	Qual Code
F13055-11	011-04-MP-05N-S-18'	SW8310	1-Methylnaphthalene	187 J		187 J		<
F13055-11	011-04-MP-05N-S-18'	SW8310	Anthracene	236 J		236 J		<
F13055-11	011-04-MP-05N-S-18'	SW8310	Benzo(a)anthracene	210 J		210 J		<
F13055-11	011-04-MP-05N-S-18'	SW8310	Benzo(b)fluoranthene	68.5 J		68.5 J		<
F13055-11	011-04-MP-05N-S-18'	SW8310	Benzo(g,h,i)perylene	31.7 J		31.7 J		<
F13055-11	011-04-MP-05N-S-18'	SW8310	Benzo(k)fluoranthene	50.7 J		50.7 J		<
F13055-11	011-04-MP-05N-S-18'	SW8310	Chrysene	248 J		248 J		<
F13055-11	011-04-MP-05N-S-18'	SW8260B	Ethylbenzene	225 J		225 J		<
F13055-11	011-04-MP-05N-S-18'	SW8310	Indeno(1,2,3-cd)pyrene	37.9 J		37.9 J		<
F13055-12	011-04-MP-05N-S-38'	SW8310	Anthracene	298 J		298 J		<
F13055-12	011-04-MP-05N-S-38'	SW8310	Fluorene	234 J		234 J		<
F13055-12	011-04-MP-05N-S-38'	SW8310	Indeno(1,2,3-cd)pyrene	55.9 J		55.9 J		<
F13055-12	011-04-MP-05N-S-38'	SW8260B	Xylene (total)	14.6 J		14.6 J		<
F13055-13	011-04-MP-05N-S-66'	SW8310	Anthracene	164 J		164 J		<
F13055-13	011-04-MP-05N-S-66'	SW8310	Benzo(a)anthracene	305 J		305 J		<
F13055-13	011-04-MP-05N-S-66'	SW8310	Benzo(g,h,i)perylene	48.8 J		48.8 J		<
F13055-13	011-04-MP-05N-S-66'	SW8310	Chrysene	292 J		292 J		<
F13055-13	011-04-MP-05N-S-66'	SW8310	Fluorene	99.3 J		99.3 J		<
F13055-13	011-04-MP-05N-S-66'	SW8310	Indeno(1,2,3-cd)pyrene	35.8 J		35.8 J		<
F13055-14	011-04-MP-10W-S-18'	SW8310	Benzo(a)anthracene	47.4 J		47.4 J		<
F13055-14	011-04-MP-10W-S-18'	SW8260B	Ethylbenzene	5000 =		5000 J		P
F13055-14	011-04-MP-10W-S-18'	SW8310	Fluoranthene	120 J		120 J		<
F13055-14	011-04-MP-10W-S-18'	SW8310	Phenanthrene	82 J		82 J		<
F13055-14	011-04-MP-10W-S-18'	SW8310	Pyrene	102 J		102 J		<
F13055-14	011-04-MP-10W-S-18'	SW8260B	Toluene	187 J		187 J		<
F13055-14	011-04-MP-10W-S-18'	SW8260B	Xylene (total)	7640 =		7640 J		P
F13055-15	011-04-MP-10W-S-43'	SW8310	Benzo(a)anthracene	73.1 J		73.1 J		<
F13055-15	011-04-MP-10W-S-43'	SW8310	Fluoranthene	254 J		254 J		<
F13055-15	011-04-MP-10W-S-43'	SW8310	Phenanthrene	155 J		155 J		<
F13055-15	011-04-MP-10W-S-43'	SW8310	Pyrene	224 J		224 J		<
F13055-15	011-04-MP-10W-S-43'	M8015D	TPH (C8-C40)	7.67 J		7.67 J		<
F13055-16	011-04-MP-10W-S-72'	SW8310	Anthracene	230 J		230 J		<
F13055-16	011-04-MP-10W-S-72'	SW8310	Benzo(a)anthracene	349 J		349 J		<
F13055-16	011-04-MP-10W-S-72'	SW8310	Benzo(g,h,i)perylene	46.2 J		46.2 J		<
F13055-16	011-04-MP-10W-S-72'	SW8310	Fluorene	141 J		141 J		<
F13055-16	011-04-MP-10W-S-72'	SW8310	Indeno(1,2,3-cd)pyrene	40.2 J		40.2 J		<
F13055-17	011-04-MP-FD2-S-100'	SW8310	Benzo(a)anthracene	42.7 J		42.7 J		<
F13055-17	011-04-MP-FD2-S-100'	SW8260B	Ethylbenzene	62300 =		62300 J		P
F13055-17	011-04-MP-FD2-S-100'	SW8310	Fluoranthene	113 J		113 J		<
F13055-17	011-04-MP-FD2-S-100'	SW8310	Phenanthrene	85.7 J		85.7 J		<
F13055-17	011-04-MP-FD2-S-100'	SW8310	Pyrene	96.3 J		96.3 J		<
F13055-17	011-04-MP-FD2-S-100'	SW8260B	Xylene (total)	53600 =		53600 J		P
F13055-2	011-04-BKGD-S-22'-Q3	SW8310	Benzo(a)anthracene	73.5 J		73.5 J		<
F13055-2	011-04-BKGD-S-22'-Q3	SW8310	Chrysene	109 J		109 J		<
F13055-2	011-04-BKGD-S-22'-Q3	SW8310	Fluoranthene	198 J		198 J		<
F13055-2	011-04-BKGD-S-22'-Q3	SW8310	Phenanthrene	161 J		161 J		<
F13055-2	011-04-BKGD-S-22'-Q3	SW8310	Pyrene	170 J		170 J		<
F13055-3	011-04-BKGD-S-43'-Q3	SW8310	Fluoranthene	102 J		102 J		<
F13055-3	011-04-BKGD-S-43'-Q3	SW8310	Phenanthrene	101 J		101 J		<
F13055-3	011-04-BKGD-S-43'-Q3	SW8310	Pyrene	88.9 J		88.9 J		<

Table 4

SUMMARY OF QUALIFIED RESULTS

(CTO#0059 - Albany Round 4 Groundwater)

Lab Sample ID	FieldID	Analysis Method	Analyte	Result	Lab Qual	Valid Result	Valid Qual	Qual Code
F13055-3	011-04-BKGD-S-43'-Q3	SW8260B	Toluene	290 J		290 J		<
F13055-4	011-04-BKGD-S-72'-Q3	SW8310	Fluoranthene	108 J		108 J		<
F13055-4	011-04-BKGD-S-72'-Q3	SW8310	Phenanthrene	107 J		107 J		<
F13055-4	011-04-BKGD-S-72'-Q3	SW8310	Pyrene	90.1 J		90.1 J		<
F13055-5	011-04-MP-30E-S-18'	SW8310	1-Methylnaphthalene	156 J		156 J		<
F13055-5	011-04-MP-30E-S-18'	SW8310	Anthracene	249 J		249 J		<
F13055-5	011-04-MP-30E-S-18'	SW8310	Benzo(a)anthracene	225 J		225 J		<
F13055-5	011-04-MP-30E-S-18'	SW8310	Benzo(g,h,i)perylene	37.5 J		37.5 J		<
F13055-5	011-04-MP-30E-S-18'	SW8310	Benzo(k)fluoranthene	62.5 J		62.5 J		<
F13055-5	011-04-MP-30E-S-18'	SW8310	Chrysene	187 J		187 J		<
F13055-5	011-04-MP-30E-S-18'	SW8310	Indeno(1,2,3-cd)pyrene	44.3 J		44.3 J		<
F13055-5	011-04-MP-30E-S-18'	SW8260B	Toluene	124 J		124 J		<
F13055-5	011-04-MP-30E-S-18'	SW8260B	Xylene (total)	499 J		499 J		<
F13055-6	011-04-MP-30E-S-43'	SW8310	Benzo(a)anthracene	167 J		167 J		<
F13055-6	011-04-MP-30E-S-43'	SW8310	Benzo(b)fluoranthene	64.3 J		64.3 J		<
F13055-6	011-04-MP-30E-S-43'	SW8310	Benzo(g,h,i)perylene	47.7 J		47.7 J		<
F13055-6	011-04-MP-30E-S-43'	SW8310	Benzo(k)fluoranthene	56.6 J		56.6 J		<
F13055-6	011-04-MP-30E-S-43'	SW8310	Chrysene	162 J		162 J		<
F13055-6	011-04-MP-30E-S-43'	SW8260B	Toluene	2.9 J		2.9 J		<
F13055-9	011-04-MP-30E-S-72'	SW8310	Benzo(a)anthracene	113 J		113 J		<
F13055-9	011-04-MP-30E-S-72'	SW8310	Benzo(a)pyrene	51 J		51 J		<
F13055-9	011-04-MP-30E-S-72'	SW8310	Benzo(b)fluoranthene	36.7 J		36.7 J		<
F13055-9	011-04-MP-30E-S-72'	SW8310	Chrysene	133 J		133 J		<
F13055-9	011-04-MP-30E-S-72'	SW8260B	Ethylbenzene	324 J		324 J		<
F13055-9	011-04-MP-30E-S-72'	SW8310	Pyrene	343 J		343 J		<
F13055-9	011-04-MP-30E-S-72'	SW8260B	Xylene (total)	959 J		959 J		<
F13066-2	011-04-MP-20S-S-18'	M8015D	TPH (C8-C40)	9.32 J		9.32 J		<
F13066-4	011-04-MP-30E-S-72'	SW8310	Benzo(a)anthracene	64.3 J		64.3 J		<
F13066-4	011-04-MP-30E-S-72'	SW8260B	Ethylbenzene	157 J		157 J		<
F13066-4	011-04-MP-30E-S-72'	SW8310	Fluoranthene	212 J		212 J		<
F13066-4	011-04-MP-30E-S-72'	SW8310	Phenanthrene	160 J		160 J		<
F13066-4	011-04-MP-30E-S-72'	SW8310	Pyrene	167 J		167 J		<
F13066-4	011-04-MP-30E-S-72'	SW8260B	Xylene (total)	367 J		367 J		<

Appendix A
Validated Reports of Analysis

Volatile Organic Analyses

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q1
Lab Sample ID: F11289-1
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B0006811.D	1	10/25/01	JG	n/a	n/a	VB293
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120 %
17060-07-0	1,2-Dichloroethane-D4	88%		80-120 %
2037-26-5	Toluene-D8	93%		80-120 %
460-00-4	4-Bromofluorobenzene	95%		80-120 %

Onw 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q1
 Lab Sample ID: F11289-2
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 86.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G015609.D	50	10/25/01	RAW	n/a	n/a	VG479
Run #2	G015615.D	500	10/25/01	RAW	n/a	n/a	VG479

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	230	ug/kg	U	
108-88-3	Toluene	112	230	ug/kg	J	<
100-41-4	Ethylbenzene	13200 *	2300	ug/kg	=	
1330-20-7	Xylene (total)	39000 *	6900	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%	106%	75-125%
2037-26-5	Toluene-D8	90%	96%	75-125%
460-00-4	4-Bromofluorobenzene	88%	98%	72-137%
17060-07-0	1,2-Dichloroethane-D4	113%	98%	68-125%

(a) Result is from Run# 2

Ames 6/23/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q1
Lab Sample ID: F11289-3
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 94.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G015610.D	50	10/25/01	RAW	n/a	n/a	VG479
Run #2	G015616.D	500	10/25/01	RAW	n/a	n/a	VG479

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	270	ug/kg	4	
108-88-3	Toluene	2180	270	ug/kg	=	
100-41-4	Ethylbenzene	10700 *	2700	ug/kg	=	
1330-20-7	Xylene (total)	39700 *	8200	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%	108%	75-125%
2037-26-5	Toluene-D8	101%	90%	75-125%
460-00-4	4-Bromofluorobenzene	89%	89%	72-137%
17060-07-0	1,2-Dichloroethane-D4	96%	100%	68-125%

(a) Result is from Run# 2

CMW 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-30'-Q1
 Lab Sample ID: F11289-5
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 90.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G015618.D	50	10/25/01	RAW	n/a	n/a	VG479
Run #2	H014132.D	200	11/05/01	NAF	n/a	n/a	VH443

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	230	ug/kg	U	
108-88-3	Toluene	118	230	ug/kg	J	<
100-41-4	Ethylbenzene	15900 ^a	940	ug/kg	J	P
1330-20-7	Xylene (total)	38800 ^a	2800	ug/kg	J	P

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%	89%	75-125%
2037-26-5	Toluene-D8	93%	118%	75-125%
460-00-4	4-Bromofluorobenzene	94%	102%	72-137%
17060-07-0	1,2-Dichloroethane-D4	107%	88%	68-125%

(a) Result is from Run# 2

onmo 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q1
 Lab Sample ID: F11289-4
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 90.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G015617.D	500	10/25/01	RAW	n/a	n/a	VG479
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	2300	ug/kg	U	
108-88-3	Toluene	ND	2300	ug/kg	U	
100-41-4	Ethylbenzene	38400	2300	ug/kg	J	P
1330-20-7	Xylene (total)	91000	6900	ug/kg	J	P

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		75-125%
2037-26-5	Toluene-D8	98%		75-125%
460-00-4	4-Bromofluorobenzene	88%		72-137%
17060-07-0	1,2-Dichloroethane-D4	102%		68-125%

CMMS 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q1
 Lab Sample ID: F11289-6
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 93.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G015619.D	50	10/25/01	RAW	n/a	n/a	VG479
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	290	ug/kg	U	
108-88-3	Toluene	219	290	ug/kg	J	<
100-41-4	Ethylbenzene	458	290	ug/kg	=	
1330-20-7	Xylene (total)	1550	860	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		75-125%
2037-26-5	Toluene-D8	96%		75-125%
460-00-4	4-Bromofluorobenzene	89%		72-137%
17060-07-0	1,2-Dichloroethane-D4	91%		68-125%

CMW 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q1
Lab Sample ID: F11289-7
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	B0006812.D	1	10/25/01	JG	n/a	n/a	VB293

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		80-120%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

OMO 6/25/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-TRIPB-W-01-Q1
 Lab Sample ID: F11289-8
 Matrix: AQ - Trip Blank Water
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B0006813.D	1	10/25/01	JG	n/a	n/a	VB293
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		80-120%
2037-26-5	Toluene-D8	94%		80-120%
460-00-4	4-Bromofluorobenzene	96%		80-120%

cmw 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-18-Q1
 Lab Sample ID: F11298-5
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: 87.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0015661.D	50	11/02/01	KW	n/a	n/a	VG482
Run #2	G0015685.D	200	11/05/01	KW	n/a	n/a	VG483

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	240	ug/kg	U
108-88-3	Toluene	ND	240	ug/kg	U
100-41-4	Ethylbenzene	9570 ^a	960	ug/kg	=
1330-20-7	Xylene (total)	10100	720	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%	95%	75-125%
2037-26-5	Toluene-D8	90%	84%	75-125%
460-00-4	4-Bromofluorobenzene	78%	90%	72-137%
17060-07-0	1,2-Dichloroethane-D4	79%	91%	68-125%

(a) Result is from Run# 2

Onmo 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0022

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-38-Q1
 Lab Sample ID: F11298-6
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: 90.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H014131.D	1	11/05/01	NAF	n/a	n/a	VH443
Run #2	G0015660.D	50	11/02/01	KW	n/a	n/a	VG482

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	34.1	6.9	ug/kg	=	
108-88-3	Toluene	344	6.9	ug/kg	EJ	E
100-41-4	Ethylbenzene	120	6.9	ug/kg	=	
1330-20-7	Xylene (total)	353	21	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%	101%	75-125%
2037-26-5	Toluene-D8	124%	80%	75-125%
460-00-4	4-Bromofluorobenzene	104%	86%	72-137%
17060-07-0	1,2-Dichloroethane-D4	78%	90%	68-125%

Chris 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-POSTEB-W-02-Q1
 Lab Sample ID: F11298-7
 Matrix: AQ - Field Blank Water
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	B0006830.D	1	10/26/01	JG	n/a	n/a	VB294
Run #2							

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	

Qual
Code

CND *

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		80-120%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	93%		80-120%

CND 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-TRIPB-W-03-Q1
Lab Sample ID: F11333-1
Matrix: AQ - Trip Blank Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0006378.D	1	10/30/01	JG	n/a	n/a	VC304
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	↓
1330-20-7	Xylene (total)	ND	6.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		80-120%
2037-26-5	Toluene-D8	100%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

Omms 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: 011-04-PREEB-W-03-Q1
Lab Sample ID: F11333-2
Matrix: AQ - Field Blank Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0006379.D	1	10/30/01	JG	n/a	n/a	VC304
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	U
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-120%
17060-07-0	1,2-Dichloroethane-D4	104%		80-120%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

OMO 6/25/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-5N-S-66'-Q1
Lab Sample ID: F11333-3
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: 89.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0015676.D	500	11/05/01	KW	n/a	n/a	VG483
Run #2	G0015686.D	1000	11/05/01	KW	n/a	n/a	VG483

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2400	ug/kg	U
108-88-3	Toluene	68000 *	4800	ug/kg	=
100-41-4	Ethylbenzene	31200	2400	ug/kg	=
1330-20-7	Xylene (total)	112000	7100	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	95%	75-125%
2037-26-5	Toluene-D8	90%	84%	75-125%
460-00-4	4-Bromofluorobenzene	87%	95%	72-137%
17060-07-0	1,2-Dichloroethane-D4	89%	89%	68-125%

(a) Result is from Run# 2

CMW 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18-Q1
 Lab Sample ID: F11333-4
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
 Date Received: 10/27/01
 Percent Solids: 87.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0015677.D	50	11/05/01	KW	n/a	n/a	VG483
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	220	ug/kg	U
108-88-3	Toluene	ND	220	ug/kg	U
100-41-4	Ethylbenzene	2100	220	ug/kg	=
1330-20-7	Xylene (total)	252	670	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		75-125%
2037-26-5	Toluene-D8	86%		75-125%
460-00-4	4-Bromofluorobenzene	88%		72-137%
17060-07-0	1,2-Dichloroethane-D4	85%		68-125%

Cmo 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43-Q1
Lab Sample ID: F11333-5
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: 83.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0015680.D	2000	11/05/01	KW	n/a	n/a	VG483
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	9600	ug/kg	U
108-88-3	Toluene	139000	9600	ug/kg	=
100-41-4	Ethylbenzene	49300	9600	ug/kg	=
1330-20-7	Xylene (total)	98900	29000	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-125%
2037-26-5	Toluene-D8	80%		75-125%
460-00-4	4-Bromofluorobenzene	94%		72-137%
17060-07-0	1,2-Dichloroethane-D4	90%		68-125%

Onmo 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18-Q1
Lab Sample ID: F11333-6
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 89.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0015682.D	50	11/05/01	KW	n/a	n/a	VG483
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	240	ug/kg	U
108-88-3	Toluene	ND	240	ug/kg	U
100-41-4	Ethylbenzene	1600	240	ug/kg	=
1330-20-7	Xylene (total)	1520	710	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		75-125%
2037-26-5	Toluene-D8	86%		75-125%
460-00-4	4-Bromofluorobenzene	93%		72-137%
17060-07-0	1,2-Dichloroethane-D4	84%		68-125%

CMW 6/25/12

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43-Q1
 Lab Sample ID: F11333-7
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: 93.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007251.D	1	11/05/01	NAF	n/a	n/a	VK246
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.6	ug/kg	NA
108-88-3	Toluene	ND	5.6	ug/kg	
100-41-4	Ethylbenzene	ND	5.6	ug/kg	
1330-20-7	Xylene (total)	ND	17	ug/kg	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-125%
2037-26-5	Toluene-D8	97%		75-125%
460-00-4	4-Bromofluorobenzene	101%		72-137%
17060-07-0	1,2-Dichloroethane-D4	99%		68-125%

cms 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72-Q1
Lab Sample ID: F11333-8
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 91.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0015683.D	500	11/05/01	KW	n/a	n/a	VG483
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	2570	2500	ug/kg	U
108-88-3	Toluene	31800	2500	ug/kg	
100-41-4	Ethylbenzene	15800	2500	ug/kg	
1330-20-7	Xylene (total)	47600	7500	ug/kg	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		75-125%
2037-26-5	Toluene-D8	82%		75-125%
460-00-4	4-Bromofluorobenzene	94%		72-137%
17060-07-0	1,2-Dichloroethane-D4	92%		68-125%

CMW 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-72-Q1
 Lab Sample ID: F11333-9
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: 90.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007252.D	1	11/05/01	NAF	n/a	n/a	VK246
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	4.8	ug/kg	U
108-88-3	Toluene	ND	4.8	ug/kg	
100-41-4	Ethylbenzene	ND	4.8	ug/kg	
1330-20-7	Xylene (total)	ND	14	ug/kg	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		75-125%
2037-26-5	Toluene-D8	108%		75-125%
460-00-4	4-Bromofluorobenzene	101%		72-137%
17060-07-0	1,2-Dichloroethane-D4	90%		68-125%

CMD 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-POSTEB-W-03-Q1
 Lab Sample ID: F11333-10
 Matrix: AQ - Field Blank Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C0006380.D	1	10/30/01	JG	n/a	n/a	VC304
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	4
108-88-3	Toluene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	105%		80-120%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

CMMD 6/25/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-PREEB-W-01-Q2

Lab Sample ID: F12178-1

Matrix: AQ - Field Blank Soil

Method: SW846 8021B

Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02

Date Received: 01/31/02

Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF016554.D	1	02/05/02	RM	n/a	n/a	GEF518
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	106%		80-120%
98-08-8	aaa-Trifluorotoluene	108%		70-127%

Cmuo 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18'-Q2
 Lab Sample ID: F12178-2
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 87.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015304.D	50	02/08/02	NAF	n/a	n/a	VH495
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	290	ug/kg	U
108-88-3	Toluene	ND	290	ug/kg	U
100-41-4	Ethylbenzene	10700	290	ug/kg	=
1330-20-7	Xylene (total)	7040	880	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		75-125%
2037-26-5	Toluene-D8	104%		75-125%
460-00-4	4-Bromofluorobenzene	102%		72-137%
17060-07-0	1,2-Dichloroethane-D4	108%		68-125%

CMUO 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q2
Lab Sample ID: F12178-3
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 91.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015299.D	1	02/08/02	NAF	n/a	n/a	VH495
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	9.9	7.8	ug/kg	=
108-88-3	Toluene	73.1	7.8	ug/kg	=
100-41-4	Ethylbenzene	15.5	7.8	ug/kg	=
1330-20-7	Xylene (total)	54.4	23	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		75-125%
2037-26-5	Toluene-D8	101%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	96%		68-125%

CRM 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q2
 Lab Sample ID: F12178-4
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 88.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015305.D	50	02/08/02	NAF	n/a	n/a	VH495
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	120	290	ug/kg	J	<
108-88-3	Toluene	682	290	ug/kg	=	
100-41-4	Ethylbenzene	205	290	ug/kg	J	<
1330-20-7	Xylene (total)	436	870	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		75-125%
2037-26-5	Toluene-D8	100%		75-125%
460-00-4	4-Bromofluorobenzene	101%		72-137%
17060-07-0	1,2-Dichloroethane-D4	93%		68-125%

CMO 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-18'-Q2
 Lab Sample ID: F12178-5
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 88.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015298.D	500	02/08/02	NAF	n/a	n/a	VH495
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2500	ug/kg	U
108-88-3	Toluene	ND	2500	ug/kg	U
100-41-4	Ethylbenzene	46100	2500	ug/kg	=
1330-20-7	Xylene (total)	64800	7500	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		75-125%
2037-26-5	Toluene-D8	106%		75-125%
460-00-4	4-Bromofluorobenzene	99%		72-137%
17060-07-0	1,2-Dichloroethane-D4	96%		68-125%

CMD 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q2
 Lab Sample ID: F12178-6
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 91.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015300.D	1	02/08/02	NAF	n/a	n/a	VH495
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	3.6	5.4	ug/kg	J
108-88-3	Toluene	38.0	5.4	ug/kg	=
100-41-4	Ethylbenzene	19.9	5.4	ug/kg	=
1330-20-7	Xylene (total)	101	16	ug/kg	=

*Qual
Code*

<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		75-125%
2037-26-5	Toluene-D8	100%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	98%		68-125%

CMUO 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-66'-Q2
 Lab Sample ID: F12178-7
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 92.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015306.D	50	02/08/02	NAF	n/a	n/a	VH495
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	300	ug/kg	U	
108-88-3	Toluene	1170	300	ug/kg	=	
100-41-4	Ethylbenzene	313	300	ug/kg	=	
1330-20-7	Xylene (total)	703	890	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		75-125%
2037-26-5	Toluene-D8	100%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	92%		68-125%

CMMO 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q2
 Lab Sample ID: F12178-8
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 89.8

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015303.D	500	02/08/02	NAF	n/a	n/a	VH495
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2400	ug/kg	U
108-88-3	Toluene	ND	2400	ug/kg	U
100-41-4	Ethylbenzene	73600	2400	ug/kg	=
1330-20-7	Xylene (total)	168000	7100	ug/kg	=

*Qual
Code*

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		75-125%
2037-26-5	Toluene-D8	120%		75-125%
460-00-4	4-Bromofluorobenzene	104%		72-137%
17060-07-0	1,2-Dichloroethane-D4	99%		68-125%

omms 6/26/02

ND = Not detected

RL = Reporting Limit

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-43'-Q2		Date Sampled: 01/30/02
Lab Sample ID: F12178-9		Date Received: 01/31/02
Matrix: SO - Soil		Percent Solids: 89.0
Method: SW846 8260B		
Project: NAS Whiting Field CTO-0011		

Run #1 ^a	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	H015307.D	50	02/08/02	NAF	n/a	n/a	VH495

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	270	ug/kg	U	
108-88-3	Toluene	94.2	270	ug/kg	J	<
100-41-4	Ethylbenzene	103	270	ug/kg	J	<
1330-20-7	Xylene (total)	238	800	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		75-125%
2037-26-5	Toluene-D8	104%		75-125%
460-00-4	4-Bromofluorobenzene	105%		72-137%
17060-07-0	1,2-Dichloroethane-D4	92%		68-125%

(a) Dilution required due to matrix interference (non-target analytes present above calibration range).

01/10/02/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q2
Lab Sample ID: F12178-10
Matrix: AQ - Field Blank Soil
Method: SW846 8021B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF016556.D	1	02/05/02	RM	n/a	n/a	GEF518
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	U
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	108%		80-120%
98-08-8	aaa-Trifluorotoluene	107%		70-127%

01110 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-TRIPB-W-01-Q2
Lab Sample ID: F12178-11
Matrix: AQ - Trip Blank Soil
Method: SW846 8021B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF016557.D	1	02/05/02	RM	n/a	n/a	GEF518
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	U
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	102%		80-120%
98-08-8	aaa-Trifluorotoluene	106%		70-127%

02/26/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-PREEB-W-02-Q2
 Lab Sample ID: F12221-1
 Matrix: AQ - Field Blank Soil
 Method: SW846 8021B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF016568.D	1	02/06/02	RM	n/a	n/a	GEF519
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	U
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		80-120%
98-08-8	aaa-Trifluorotoluene	101%		70-127%

CMD 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q2
 Lab Sample ID: F12221-2
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 93.8

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015324.D	1	02/11/02	NAF	n/a	n/a	VH496
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	5.5	ug/kg	W	
108-88-3	Toluene	11.3	5.5	ug/kg	=	
100-41-4	Ethylbenzene	4.7	5.5	ug/kg	J	<
1330-20-7	Xylene (total)	15.2	16	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-125%
2037-26-5	Toluene-D8	98%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	100%		68-125%

CMU 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q2
Lab Sample ID: F12221-3
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 94.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007798.D	50	02/08/02	NAF	n/a	n/a	VK273
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	270	ug/kg	U
108-88-3	Toluene	ND	270	ug/kg	U
100-41-4	Ethylbenzene	413	270	ug/kg	=
1330-20-7	Xylene (total)	1560	800	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		75-125%
2037-26-5	Toluene-D8	107%		75-125%
460-00-4	4-Bromofluorobenzene	113%		72-137%
17060-07-0	1,2-Dichloroethane-D4	97%		68-125%

CMMO 6/26/02

ND = Not detected
RL = Reporting Limit

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
M = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q2
 Lab Sample ID: F12221-4
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 85.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007799.D	50	02/08/02	NAF	n/a	n/a	VK273
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	250	ug/kg	U
108-88-3	Toluene	3860	250	ug/kg	=
100-41-4	Ethylbenzene	7310	250	ug/kg	=
1330-20-7	Xylene (total)	21600	750	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		75-125%
2037-26-5	Toluene-D8	110%		75-125%
460-00-4	4-Bromofluorobenzene	110%		72-137%
17060-07-0	1,2-Dichloroethane-D4	90%		68-125%

CMMO 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q2
Lab Sample ID: F12221-5
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 93.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007800.D	50	02/08/02	NAF	n/a	n/a	VK273
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	290	ug/kg	U
108-88-3	Toluene	6740	290	ug/kg	=
100-41-4	Ethylbenzene	3700	290	ug/kg	=
1330-20-7	Xylene (total)	11400	860	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		75-125%
2037-26-5	Toluene-D8	107%		75-125%
460-00-4	4-Bromofluorobenzene	114%		72-137%
17060-07-0	1,2-Dichloroethane-D4	93%		68-125%

CMW 6/26/02

ND = Not detected
RL = Reporting Limit

J = Indicates an estimated value
B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q2
 Lab Sample ID: F12221-6
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 85.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H015325.D	50	02/11/02	NAF	n/a	n/a	VH496
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	230	ug/kg	U
108-88-3	Toluene	ND	230	ug/kg	U
100-41-4	Ethylbenzene	7210	230	ug/kg	=
1330-20-7	Xylene (total)	5270	680	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		75-125%
2037-26-5	Toluene-D8	101%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	100%		68-125%

CMUO 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43'-Q2
 Lab Sample ID: F12221-7
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 92.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007795.D	1	02/08/02	NAF	n/a	n/a	VK273
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.2	ug/kg	u
108-88-3	Toluene	ND	5.2	ug/kg	u
100-41-4	Ethylbenzene	21.1	5.2	ug/kg	=
1330-20-7	Xylene (total)	19.3	16	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		75-125%
2037-26-5	Toluene-D8	107%		75-125%
460-00-4	4-Bromofluorobenzene	120%		72-137%
17060-07-0	1,2-Dichloroethane-D4	92%		68-125%

CMW 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72'-Q2
 Lab Sample ID: F12221-8
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 94.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007815.D	1	02/12/02	NAF	n/a	n/a	VK274
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.7	ug/kg	U
108-88-3	Toluene	6.1	5.7	ug/kg	=
100-41-4	Ethylbenzene	1.1	5.7	ug/kg	J
1330-20-7	Xylene (total)	5.7	17	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		75-125%
2037-26-5	Toluene-D8	104%		75-125%
460-00-4	4-Bromofluorobenzene	111%		72-137%
17060-07-0	1,2-Dichloroethane-D4	101%		68-125%

Cmu 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-100'-Q2
 Lab Sample ID: F12221-9
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 92.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K007796.D	1	02/08/02	NAF	n/a	n/a	VK273
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.2	ug/kg	U
108-88-3	Toluene	ND	5.2	ug/kg	U
100-41-4	Ethylbenzene	2.9	5.2	ug/kg	J
1330-20-7	Xylene (total)	3.0	15	ug/kg	J

Qual
Code<
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		75-125%
2037-26-5	Toluene-D8	105%		75-125%
460-00-4	4-Bromofluorobenzene	120%		72-137%
17060-07-0	1,2-Dichloroethane-D4	100%		68-125%

Cmms 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-02-Q2
Lab Sample ID: F12221-10
Matrix: AQ - Field Blank Soil
Method: SW846 8021B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF016569.D	1	02/06/02	RM	n/a	n/a	GEF519
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	104%		80-120%
98-08-8	aaa-Trifluorotoluene	103%		70-127%

CMMO 6/26/02

ND = Not detected
RL = Reporting Limit

J = Indicates an estimated value
R = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-TRIPB-W-02-Q2
 Lab Sample ID: F12221-11
 Matrix: AQ - Trip Blank Water
 Method: SW846 8021B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BF016570.D	1	02/06/02	RM	n/a	n/a	GEF519
Run #2							

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%		80-120%
98-08-8	aaa-Trifluorotoluene	100%		70-127%

Cmmo 6/26/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q3
 Lab Sample ID: F13055-1
 Matrix: AQ - Field Blank Soil
 Method: SW846 8021B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD029482.D	1	05/07/02	RA	n/a	n/a	GCD1149
Run #2	CD029460.D	1	05/06/02	RA	n/a	n/a	GCD1148

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	U
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%	85%	80-120%
98-08-8	aaa-Trifluorotoluene	96%	88%	70-127%

Onus 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0615

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q3
Lab Sample ID: F13055-2
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 89.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016357.D	1	05/06/02	NAF	n/a	n/a	VH545
Run #2	H016384.D	1	05/07/02	NAF	n/a	n/a	VH546

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.85 g	5.0 ml	100 ul
Run #2	4.85 g	5.0 ml	50.0 ul

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	290	ug/kg	U
108-88-3	Toluene	ND	290	ug/kg	U
100-41-4	Ethylbenzene	15600 *	580	ug/kg	=
1330-20-7	Xylene (total)	41600 *	1700	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	99%	75-125%
2037-26-5	Toluene-D8	119%	112%	75-125%
460-00-4	4-Bromofluorobenzene	120%	105%	72-137%
17060-07-0	1,2-Dichloroethane-D4	108%	106%	68-125%

(a) Result is from Run# 2

Corrected 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q3
 Lab Sample ID: F13055-3
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 94.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016358.D	1	05/06/02	NAF	n/a	n/a	VH545
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.70 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	360	ug/kg	U	
108-88-3	Toluene	290	360	ug/kg	J	<
100-41-4	Ethylbenzene	2020	360	ug/kg	=	
1330-20-7	Xylene (total)	8790	1100	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-125%
2037-26-5	Toluene-D8	100%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	105%		68-125%

Conc 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-72'-Q3
 Lab Sample ID: F13055-4
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 93.1

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016385.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.10 g	5.0 ml	10.0 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2600	ug/kg	U
108-88-3	Toluene	72000	2600	ug/kg	=
100-41-4	Ethylbenzene	44400	2600	ug/kg	=
1330-20-7	Xylene (total)	147000	7900	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		75-125%
2037-26-5	Toluene-D8	108%		75-125%
460-00-4	4-Bromofluorobenzene	113%		72-137%
17060-07-0	1,2-Dichloroethane-D4	103%		68-125%

CMC 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q3
 Lab Sample ID: F13055-5
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 87.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016360.D	1	05/06/02	NAF	n/a	n/a	VH545
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.80 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	300	ug/kg	u
108-88-3	Toluene	124	300	ug/kg	J
100-41-4	Ethylbenzene	797	300	ug/kg	=
1330-20-7	Xylene (total)	499	890	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		75-125%
2037-26-5	Toluene-D8	104%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	108%		68-125%

Cms 6/28/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0030

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3
Lab Sample ID: F13055-6
Matrix: SO - Soil
Method: SW846 8260B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 93.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016376.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2							

	Initial Weight
Run #1	4.17 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.4	ug/kg	U
108-88-3	Toluene	2.9	6.4	ug/kg	J
100-41-4	Ethylbenzene	ND	6.4	ug/kg	U
1330-20-7	Xylene (total)	ND	19	ug/kg	U

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		75-125%
2037-26-5	Toluene-D8	110%		75-125%
460-00-4	4-Bromofluorobenzene	108%		72-137%
17060-07-0	1,2-Dichloroethane-D4	90%		68-125%

miss 6/26/02

0034

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-POSTEB-W-01-Q3
 Lab Sample ID: F13055-7
 Matrix: AQ - Field Blank Soil
 Method: SW846 8021B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD029485.D	1	05/07/02	RA	n/a	n/a	GCD1149
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	1.0	ug/l	↓
100-41-4	Ethylbenzene	ND	1.0	ug/l	↓
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	94%		80-120%
98-08-8	aaa-Trifluorotoluene	99%		70-127%

CMC 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of analyte found

Report of Analysis

Client Sample ID: 011-04-PREEB-W-02-Q3
 Lab Sample ID: F13055-8
 Matrix: AQ - Field Blank Soil
 Method: SW846 8021B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD029486.D	1	05/07/02	RA	n/a	n/a	GCD1149
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	92%		80-120%
98-08-8	aaa-Trifluorotoluene	97%		70-127%

CMUO 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
 Lab Sample ID: F13055-9
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02*
 Percent Solids: 93.7

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016364.D	1	05/06/02	NAF	n/a	n/a	VH545
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.01 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	330	ug/kg	u
108-88-3	Toluene	594	330	ug/kg	z
100-41-4	Ethylbenzene	324	330	ug/kg	J
1330-20-7	Xylene (total)	959	1000	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		75-125%
2037-26-5	Toluene-D8	100%		75-125%
460-00-4	4-Bromofluorobenzene	102%		72-137%
17060-07-0	1,2-Dichloroethane-D4	108%		68-125%

Cmuo 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0044

Report of Analysis

Client Sample ID: 011-04-MP-FD1-S-100'-Q3
 Lab Sample ID: F13055-10
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 91.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	H016365.D	1	05/06/02	NAF	n/a	n/a	VH545
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.58 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	300	ug/kg	u
108-88-3	Toluene	ND	300	ug/kg	
100-41-4	Ethylbenzene	ND	300	ug/kg	
1330-20-7	Xylene (total)	ND	900	ug/kg	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		75-125%
2037-26-5	Toluene-D8	101%		75-125%
460-00-4	4-Bromofluorobenzene	101%		72-137%
17060-07-0	1,2-Dichloroethane-D4	105%		68-125%

(a) Methanol extract analysis required due to matrix interference (non-target analytes present above calibration range).

CNN06/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0048

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-18'-Q3
 Lab Sample ID: F13055-11
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 87.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	H016356.D	1	05/06/02	NAF	n/a	n/a	VH545
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.57 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	260	ug/kg	u
108-88-3	Toluene	ND	260	ug/kg	u
100-41-4	Ethylbenzene	225	260	ug/kg	J
1330-20-7	Xylene (total)	ND	770	ug/kg	u

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		75-125%
2037-26-5	Toluene-D8	102%		75-125%
460-00-4	4-Bromofluorobenzene	100%		72-137%
17060-07-0	1,2-Dichloroethane-D4	108%		68-125%

(a) Methanol extract analysis required due to matrix interference (non-target analytes present above calibration range).

Cmno 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

NI = Indicates presumptive evidence of a compound

0052

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q3
 Lab Sample ID: F13055-12
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 90.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016377.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2							

	Initial Weight
Run #1	4.50 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.2	ug/kg	u
108-88-3	Toluene	6.4	6.2	ug/kg	=
100-41-4	Ethylbenzene	11.8	6.2	ug/kg	=
1330-20-7	Xylene (total)	14.6	18	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		75-125%
2037-26-5	Toluene-D8	105%		75-125%
460-00-4	4-Bromofluorobenzene	105%		72-137%
17060-07-0	1,2-Dichloroethane-D4	104%		68-125%

Chris 6/26/02

ND = Not detected

RL = Reporting Limit

J = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

CC 56

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-66'-Q3
 Lab Sample ID: F13055-13
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 90.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016386.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2	H016403.D	1	05/08/02	NAF	n/a	n/a	VH547

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.90 g	5.0 ml	10.0 ul
Run #2	4.90 g	5.0 ml	5.0 ul

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	5460	2800	ug/kg	≈
108-88-3	Toluene	121000 ^a	5600	ug/kg	≈
100-41-4	Ethylbenzene	31500	2800	ug/kg	≈
1330-20-7	Xylene (total)	74000	8500	ug/kg	≈

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	98%	75-125%
2037-26-5	Toluene-D8	108%	103%	75-125%
460-00-4	4-Bromofluorobenzene	124%	129%	72-137%
17060-07-0	1,2-Dichloroethane-D4	105%	98%	68-125%

(a) Result is from Run# 2

CMMO 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18'-Q3
 Lab Sample ID: F13055-14
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016368.D	1	05/06/02	NAF	n/a	n/a	VH545
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.15 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	270	ug/kg	U	
108-88-3	Toluene	187	270	ug/kg	J	<
100-41-4	Ethylbenzene	5000	270	ug/kg	J	P
1330-20-7	Xylene (total)	7640	820	ug/kg	J	P

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		75-125%
2037-26-5	Toluene-D8	106%		75-125%
460-00-4	4-Bromofluorobenzene	103%		72-137%
17060-07-0	1,2-Dichloroethane-D4	106%		68-125%

CMW 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive value of a compound

0064

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q3
 Lab Sample ID: F13055-15
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 94.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016378.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2							

	Initial Weight
Run #1	3.97 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	6.7	ug/kg	U
108-88-3	Toluene	31.4	6.7	ug/kg	=
100-41-4	Ethylbenzene	9.2	6.7	ug/kg	=
1330-20-7	Xylene (total)	24.5	20	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		75-125%
2037-26-5	Toluene-D8	104%		75-125%
460-00-4	4-Bromofluorobenzene	119%		72-137%
17060-07-0	1,2-Dichloroethane-D4	107%		68-125%

Chris 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q3
 Lab Sample ID: F13055-16
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 92.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016387.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2	H016404.D	1	05/08/02	NAF	n/a	n/a	VH547

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.15 g	5.0 ml	10.0 ul
Run #2	4.15 g	5.0 ml	5.0 ul

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	8700	3300	ug/kg	=
108-88-3	Toluene	220000 *	6500	ug/kg	=
100-41-4	Ethylbenzene	55700	3300	ug/kg	=
1330-20-7	Xylene (total)	127000	9800	ug/kg	=

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	98%	75-125 %
2037-26-5	Toluene-D8	108%	104%	75-125 %
460-00-4	4-Bromofluorobenzene	120%	109%	72-137 %
17060-07-0	1,2-Dichloroethane-D4	108%	104%	68-125 %

(a) Result is from Run# 2

CMS 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in substituted method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-FD2-S-100'-Q3
 Lab Sample ID: F13055-17
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 89.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016388.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.91 g	5.0 ml	10.0 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2900	ug/kg	U
108-88-3	Toluene	ND	2900	ug/kg	U
100-41-4	Ethylbenzene	62300	2900	ug/kg	J
1330-20-7	Xylene (total)	53600	8600	ug/kg	J

Quel
 Code

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		75-125%
2037-26-5	Toluene-D8	107%		75-125%
460-00-4	4-Bromofluorobenzene	120%		72-137%
17060-07-0	1,2-Dichloroethane-D4	102%		68-125%

Chris 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0076

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q3
Lab Sample ID: F13055-18
Matrix: AQ - Field Blank Soil
Method: SW846 8021B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD029487.D	1	05/07/02	RA	n/a	n/a	GCD1149
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	U
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	92%		80-120%
98-08-8	aaa-Trifluorotoluene	97%		70-127%

Cons 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-TRIPB-W-01-Q3
 Lab Sample ID: F13055-19
 Matrix: AQ - Trip Blank Soil
 Method: SW846 8021B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD029483.D	1	05/07/02	RA	n/a	n/a	GCD1149
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	u
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	91%		80-120%
98-08-8	aaa-Trifluorotoluene	95%		70-127%

CME 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-20S-S-18'-Q3
 Lab Sample ID: F13066-2
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: 87.8

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016389.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2	H016405.D	1	05/08/02	NAF	n/a	n/a	VH547

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.45 g	5.0 ml	100 ul
Run #2	5.45 g	5.0 ml	50.0 ul

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Valid Qual Code
71-43-2	Benzene	ND	260	ug/kg	U	
108-88-3	Toluene	ND	260	ug/kg	U	
100-41-4	Ethylbenzene	13300 *	520	ug/kg	=	
1330-20-7	Xylene (total)	10300	780	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	98%	75-125%
2037-26-5	Toluene-D8	110%	104%	75-125%
460-00-4	4-Bromofluorobenzene	121%	110%	72-137%
17060-07-0	1,2-Dichloroethane-D4	105%	100%	68-125%

(a) Result is from Run# 2

MD 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3
 Lab Sample ID: F13066-3
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: 91.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016380.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2							

	Initial Weight
Run #1	4.60 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	6.0	ug/kg	U	
108-88-3	Toluene	ND	6.0	ug/kg	U	
100-41-4	Ethylbenzene	24.0	6.0	ug/kg	=	
1330-20-7	Xylene (total)	39.7	18	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		75-125%
2037-26-5	Toluene-D8	107%		75-125%
460-00-4	4-Bromofluorobenzene	108%		72-137%
17060-07-0	1,2-Dichloroethane-D4	106%		68-125%

mmw 6/26/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
 Lab Sample ID: F13066-4
 Matrix: SO - Soil
 Method: SW846 8260B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: 93.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H016390.D	1	05/07/02	NAF	n/a	n/a	VH546
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.78 g	5.0 ml	100 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q	Qual Code
71-43-2	Benzene	ND	280	ug/kg	U	
108-88-3	Toluene	404	280	ug/kg	=	
100-41-4	Ethylbenzene	157	280	ug/kg	J	<
1330-20-7	Xylene (total)	367	840	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-125%
2037-26-5	Toluene-D8	103%		75-125%
460-00-4	4-Bromofluorobenzene	105%		72-137%
17060-07-0	1,2-Dichloroethane-D4	108%		68-125%

CMMS 6/26/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-POSTEB-W-01-Q3
 Lab Sample ID: F13066-5
 Matrix: AQ - Field Blank Water
 Method: SW846 8021B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD029444.D	1	05/03/02	RM	n/a	n/a	GCD1147
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	84%		80-120%
98-08-8	aaa-Trifluorotoluene	91%		70-127%

CMW 6/25/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of analyte

PAH Analyses

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q1
 Lab Sample ID: F11289-1
 Matrix: AQ - Ground Water
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE006125.D	1	11/07/01	MRE	10/29/01	OP4081	GEE274
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.0	ug/l	u ↓
208-96-8	Acenaphthylene	ND	4.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		33-141%
92-94-4	p-Terphenyl	66%		31-122%

CMW 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q1
 Lab Sample ID: F11289-2
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 86.1

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006058.D	1	11/05/01	MRE	11/02/01	OP4113	GEE273
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual code
83-32-9	Acenaphthene	ND	740	ug/kg	U	
208-96-8	Acenaphthylene	ND	740	ug/kg	J	
120-12-7	Anthracene	ND	370	ug/kg	J	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	J	
50-32-8	Benzo(a)pyrene	68.7	74	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	48.3	74	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	74	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	39.7	74	ug/kg	J	<
218-01-9	Chrysene	ND	370	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	74	ug/kg	U	
206-44-0	Fluoranthene	235	370	ug/kg	J	<
86-73-7	Fluorene	ND	370	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	74	ug/kg	J	
91-20-3	Naphthalene	ND	370	ug/kg	J	
90-12-0	1-Methylnaphthalene	ND	370	ug/kg	J	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	J	
85-01-8	Phenanthrene	144	370	ug/kg	J	<
129-00-0	Pyrene	245	370	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		37-158%
92-94-4	p-Terphenyl	104%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMA 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q1
 Lab Sample ID: F11289-3
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 94.7

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006059.D	1	11/05/01	MRE	11/02/01	OP4113	GEE273
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	710	ug/kg	U
208-96-8	Acenaphthylene	ND	710	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	
50-32-8	Benzo(a)pyrene	71.6	71	ug/kg	=
205-99-2	Benzo(b)fluoranthene	48.8	71	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	36.3	71	ug/kg	J
207-08-9	Benzo(k)fluoranthene	37.8	71	ug/kg	J
218-01-9	Chrysene	ND	350	ug/kg	U
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	U
206-44-0	Fluoranthene	441	350	ug/kg	=
86-73-7	Fluorene	ND	350	ug/kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	35.2	71	ug/kg	J
91-20-3	Naphthalene	ND	350	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	U
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	U
85-01-8	Phenanthrene	342	350	ug/kg	J
129-00-0	Pyrene	356	350	ug/kg	=

*Qual
Code*

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		37-158%
92-94-4	p-Terphenyl	104%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

cmw 6/21/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-30'-Q1
 Lab Sample ID: F11289-5
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 90.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006085.D	1	11/06/01	MRE	11/02/01	OP4113	GEE274
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	740	ug/kg	U
208-96-8	Acenaphthylene	ND	740	ug/kg	U
120-12-7	Anthracene	394	370	ug/kg	=
56-55-3	Benzo(a)anthracene	857	370	ug/kg	=
50-32-8	Benzo(a)pyrene	534	74	ug/kg	=
205-99-2	Benzo(b)fluoranthene	291	74	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	129	74	ug/kg	=
207-08-9	Benzo(k)fluoranthene	246	74	ug/kg	=
218-01-9	Chrysene	3300	370	ug/kg	=
53-70-3	Dibenzo(a,h)anthracene	39.9	74	ug/kg	J
206-44-0	Fluoranthene	2280	370	ug/kg	=
86-73-7	Fluorene	306	370	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	171	74	ug/kg	=
91-20-3	Naphthalene	ND	370	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	370	ug/kg	U
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	U
85-01-8	Phenanthrene	2040	370	ug/kg	=
129-00-0	Pyrene	1900	370	ug/kg	=

*Qual
Code*

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		37-158%
92-94-4	p-Terphenyl	121%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMU 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0025

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q1
 Lab Sample ID: F11289-4
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 90.5

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006084.D	1	11/06/01	MRE	11/02/01	OP4113	GEE274
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	u
208-96-8	Acenaphthylene	ND	720	ug/kg	u
120-12-7	Anthracene	370	360	ug/kg	=
56-55-3	Benzo(a)anthracene	910	360	ug/kg	=
50-32-8	Benzo(a)pyrene	516	72	ug/kg	=
205-99-2	Benzo(b)fluoranthene	309	72	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	130	72	ug/kg	=
207-08-9	Benzo(k)fluoranthene	252	72	ug/kg	=
218-01-9	Chrysene	3250	360	ug/kg	=
53-70-3	Dibenzo(a,h)anthracene	43.9	72	ug/kg	J
206-44-0	Fluoranthene	2320	360	ug/kg	=
86-73-7	Fluorene	262	360	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	186	72	ug/kg	=
91-20-3	Naphthalene	ND	360	ug/kg	u
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓
85-01-8	Phenanthrene	1880	360	ug/kg	=
129-00-0	Pyrene	1940	360	ug/kg	=

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		37-158%
92-94-4	p-Terphenyl	136%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

Handwritten: CMD 6/17/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q1
 Lab Sample ID: F11289-6
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: 93.5

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	EE006083.D	1	11/06/01	MRE	11/02/01	OP4113	GEE274

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	700	ug/kg	U	
208-96-8	Acenaphthylene	ND	700	ug/kg		
120-12-7	Anthracene	ND	350	ug/kg		
56-55-3	Benzo(a)anthracene	ND	350	ug/kg		
50-32-8	Benzo(a)pyrene	43.9	70	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	33.8	70	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg		
218-01-9	Chrysene	ND	350	ug/kg		
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg		
206-44-0	Fluoranthene	242	350	ug/kg	J	<
86-73-7	Fluorene	ND	350	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg		
91-20-3	Naphthalene	ND	350	ug/kg		
90-12-0	1-Methylnaphthalene	ND	350	ug/kg		
91-57-6	2-Methylnaphthalene	ND	350	ug/kg		
85-01-8	Phenanthrene	153	350	ug/kg	J	<
129-00-0	Pyrene	204	350	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	76%		37-158%
92-94-4	p-Terphenyl	100%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

On 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q1
 Lab Sample ID: F11289-7
 Matrix: AQ - Ground Water
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
 Date Received: 10/23/01
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE006126.D	1	11/07/01	MRE	10/29/01	OP4081	GEE274
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	u ↓ ✓
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		33-141%
92-94-4	p-Terphenyl	77%		31-122%

CMD 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0022

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q1
 Lab Sample ID: F11298-3
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: 92.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006063.D	1	11/05/01	MRE	11/02/01	OP4113	GEE273
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	<i>Qual Code</i>
83-32-9	Acenaphthene	ND	730	ug/kg	u	
208-96-8	Acenaphthylene	ND	730	ug/kg		
120-12-7	Anthracene	ND	360	ug/kg		
56-55-3	Benzo(a)anthracene	ND	360	ug/kg		
50-32-8	Benzo(a)pyrene	ND	73	ug/kg		
205-99-2	Benzo(b)fluoranthene	ND	73	ug/kg		
191-24-2	Benzo(g,h,i)perylene	ND	73	ug/kg		
207-08-9	Benzo(k)fluoranthene	ND	73	ug/kg		
218-01-9	Chrysene	ND	360	ug/kg		
53-70-3	Dibenzo(a,h)anthracene	ND	73	ug/kg	↓	
206-44-0	Fluoranthene	266	360	ug/kg	J	<
86-73-7	Fluorene	ND	360	ug/kg	u	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	73	ug/kg		
91-20-3	Naphthalene	ND	360	ug/kg		
90-12-0	1-Methylnaphthalene	ND	360	ug/kg		
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓	
85-01-8	Phenanthrene	213	360	ug/kg	J	<
129-00-0	Pyrene	212	360	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		37-158%
92-94-4	p-Terphenyl	101%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

Cmo 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q1
 Lab Sample ID: F11298-4
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: 92.1

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE006064.D	1	11/05/01	MRE	11/02/01	OP4113	GEE273
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	u
208-96-8	Acenaphthylene	ND	720	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	72	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	72	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	72	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	72	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	
206-44-0	Fluoranthene	245	360	ug/kg	J
86-73-7	Fluorene	ND	360	ug/kg	u
193-39-5	Indeno(1,2,3-cd)pyrene	ND	72	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
85-01-8	Phenanthrene	203	360	ug/kg	J
129-00-0	Pyrene	197	360	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		37-158%
92-94-4	p-Terphenyl	91%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMMS 6/21/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-18-Q1
 Lab Sample ID: F11298-5
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: 87.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE006086.D	4	11/06/01	MRE	11/02/01	OP4113	GEE274
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1870	3000	ug/kg	J
208-96-8	Acenaphthylene	ND	3000	ug/kg	U
120-12-7	Anthracene	2320	1500	ug/kg	=
56-55-3	Benzo(a)anthracene	3220	1500	ug/kg	=
50-32-8	Benzo(a)pyrene	1450	300	ug/kg	=
205-99-2	Benzo(b)fluoranthene	749	300	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	257	300	ug/kg	J
207-08-9	Benzo(k)fluoranthene	670	300	ug/kg	=
218-01-9	Chrysene	3750	1500	ug/kg	=
53-70-3	Dibenzo(a,h)anthracene	ND	300	ug/kg	U
206-44-0	Fluoranthene	12300	1500	ug/kg	=
86-73-7	Fluorene	1660	1500	ug/kg	=
193-39-5	Indeno(1,2,3-cd)pyrene	351	300	ug/kg	=
91-20-3	Naphthalene	ND	1500	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	1500	ug/kg	U
91-57-6	2-Methylnaphthalene	ND	1500	ug/kg	↓
85-01-8	Phenanthrene	10700	1500	ug/kg	=
129-00-0	Pyrene	10200	1500	ug/kg	=

Qual
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	112%		37-158%
92-94-4	p-Terphenyl	117%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

new 6/5/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-38-Q1
 Lab Sample ID: F11298-6
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: 90.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006087.D	1	11/06/01	MRE	11/02/01	OP4113	GEE274
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	U
208-96-8	Acenaphthylene	ND	720	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	↓
56-55-3	Benzo(a)anthracene	364	360	ug/kg	=
50-32-8	Benzo(a)pyrene	166	72	ug/kg	=
205-99-2	Benzo(b)fluoranthene	94.1	72	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	36.2	72	ug/kg	J
207-08-9	Benzo(k)fluoranthene	96.6	72	ug/kg	=
218-01-9	Chrysene	312	360	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	U
206-44-0	Fluoranthene	1270	360	ug/kg	=
86-73-7	Fluorene	ND	360	ug/kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	40.4	72	ug/kg	J
91-20-3	Naphthalene	ND	360	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓
85-01-8	Phenanthrene	961	360	ug/kg	=
129-00-0	Pyrene	1090	360	ug/kg	=

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		37-158%
92-94-4	p-Terphenyl	109%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CML 6/21/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-02-Q1
 Lab Sample ID: F11298-7
 Matrix: AQ - Field Blank Water
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
 Date Received: 10/24/01
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE005931.D	1	11/01/01	MRE	10/30/01	OP4093	GEE270
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.0	ug/l	4
208-96-8	Acenaphthylene	ND	4.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	57%		33-141%
92-94-4	p-Terphenyl	70%		31-122%

CMMO 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-PREEB-W-03-Q1
 Lab Sample ID: F11333-2
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
 Date Received: 10/27/01
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE005994.D	1	11/02/01	MRE	11/01/01	OP4105	GEE271
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	A ↓
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	51%		33-141%
92-94-4	p-Terphenyl	54%		31-122%

CMW 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID: 011-04-MP-5N-S-66'-Q1
 Lab Sample ID: F11333-3
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
 Date Received: 10/27/01
 Percent Solids: 89.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006139.D	1	11/07/01	MRE	11/06/01	OP4131	GEE276
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	740	ug/kg	u
208-96-8	Acenaphthylene	ND	740	ug/kg	u
120-12-7	Anthracene	473	370	ug/kg	=
56-55-3	Benzo(a)anthracene	807	370	ug/kg	=
50-32-8	Benzo(a)pyrene	336	74	ug/kg	=
205-99-2	Benzo(b)fluoranthene	203	74	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	86.1	74	ug/kg	=
207-08-9	Benzo(k)fluoranthene	187	74	ug/kg	=
218-01-9	Chrysene	1420	370	ug/kg	=
53-70-3	Dibenzo(a,h)anthracene	ND	74	ug/kg	u
206-44-0	Fluoranthene	2930	370	ug/kg	=
86-73-7	Fluorene	292	370	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	97.7	74	ug/kg	=
91-20-3	Naphthalene	ND	370	ug/kg	u
90-12-0	1-Methylnaphthalene	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	↓
85-01-8	Phenanthrene	2270	370	ug/kg	=
129-00-0	Pyrene	2450	370	ug/kg	=

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		37-158%
92-94-4	p-Terphenyl	99%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMMO 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18-Q1
 Lab Sample ID: F11333-4
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
 Date Received: 10/27/01
 Percent Solids: 87.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006140.D	1	11/07/01	MRE	11/06/01	OP4131	GEE276
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	710	ug/kg	U	
208-96-8	Acenaphthylene	ND	710	ug/kg		
120-12-7	Anthracene	ND	350	ug/kg		
56-55-3	Benzo(a)anthracene	ND	350	ug/kg		
50-32-8	Benzo(a)pyrene	62.5	71	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	36.3	71	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	71	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	ND	71	ug/kg		
218-01-9	Chrysene	ND	350	ug/kg		
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg		
206-44-0	Fluoranthene	252	350	ug/kg	J	<
86-73-7	Fluorene	ND	350	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	71	ug/kg		
91-20-3	Naphthalene	ND	350	ug/kg		
90-12-0	1-Methylnaphthalene	ND	350	ug/kg		
91-57-6	2-Methylnaphthalene	ND	350	ug/kg		
85-01-8	Phenanthrene	ND	350	ug/kg		
129-00-0	Pyrene	240	350	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		37-158%
92-94-4	p-Terphenyl	90%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMD 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43-Q1
 Lab Sample ID: F11333-5
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
 Date Received: 10/27/01
 Percent Solids: 83.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006141.D	1	11/07/01	MRE	11/06/01	OP4131	GEE276
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	780	ug/kg	U	
208-96-8	Acenaphthylene	ND	780	ug/kg		
120-12-7	Anthracene	ND	390	ug/kg		
56-55-3	Benzo(a)anthracene	ND	390	ug/kg		
50-32-8	Benzo(a)pyrene	42.2	78	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	ND	78	ug/kg	U	
191-24-2	Benzo(g,h,i)perylene	ND	78	ug/kg		
207-08-9	Benzo(k)fluoranthene	ND	78	ug/kg		
218-01-9	Chrysene	ND	390	ug/kg		
53-70-3	Dibenzo(a,h)anthracene	ND	78	ug/kg		
206-44-0	Fluoranthene	235	390	ug/kg	J	<
86-73-7	Fluorene	ND	390	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	78	ug/kg		
91-20-3	Naphthalene	ND	390	ug/kg		
90-12-0	1-Methylnaphthalene	ND	390	ug/kg		
91-57-6	2-Methylnaphthalene	ND	390	ug/kg		
85-01-8	Phenanthrene	ND	390	ug/kg		
129-00-0	Pyrene	193	390	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		37-158%
92-94-4	p-Terphenyl	88%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CNN06/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18-Q1
 Lab Sample ID: F11333-6
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: 89.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE006142.D	1	11/07/01	MRE	11/06/01	OP4131	GEE276
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	740	ug/kg	u
208-96-8	Acenaphthylene	ND	740	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	
50-32-8	Benzo(a)pyrene	ND	74	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	74	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	74	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	74	ug/kg	
218-01-9	Chrysene	ND	370	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	74	ug/kg	
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	74	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
90-12-0	1-Methylnaphthalene	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	66%		37-158%
92-94-4	p-Terphenyl	83%		59-149%

CMMO 6/5/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43-Q1
 Lab Sample ID: F11333-7
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: 93.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE006144.D	1	11/07/01	MRE	11/06/01	OP4131	GEE276
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	710	ug/kg	U
208-96-8	Acenaphthylene	ND	710	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	71	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	71	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	71	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	71	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	71	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		37-158%
92-94-4	p-Terphenyl	82%		59-149%

cm06/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72-Q1
 Lab Sample ID: F11333-8
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: 91.7

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006147.D	1	11/07/01	MRE	11/06/01	OP4131	GEE276
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	710	ug/kg	U	
208-96-8	Acenaphthylene	ND	710	ug/kg		
120-12-7	Anthracene	ND	360	ug/kg		
56-55-3	Benzo(a)anthracene	ND	360	ug/kg		
50-32-8	Benzo(a)pyrene	40.9	71	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	40.0	71	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	71	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	34.4	71	ug/kg	J	<
218-01-9	Chrysene	ND	360	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	U	
206-44-0	Fluoranthene	388	360	ug/kg	=	
86-73-7	Fluorene	ND	360	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	71	ug/kg		
91-20-3	Naphthalene	ND	360	ug/kg		
90-12-0	1-Methylnaphthalene	ND	360	ug/kg		
91-57-6	2-Methylnaphthalene	ND	360	ug/kg		
85-01-8	Phenanthrene	294	360	ug/kg	J	<
129-00-0	Pyrene	302	360	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		37-158%
92-94-4	p-Terphenyl	89%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMLD 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72-Q1
 Lab Sample ID: F11333-9
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: 90.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE006148.D	1	11/07/01	MRE	11/06/01	OP4131	GEE276
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	720	ug/kg	U	
208-96-8	Acenaphthylene	ND	720	ug/kg		
120-12-7	Anthracene	ND	360	ug/kg		
56-55-3	Benzo(a)anthracene	ND	360	ug/kg		
50-32-8	Benzo(a)pyrene	53.0	72	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	40.7	72	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	72	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	35.0	72	ug/kg	J	<
218-01-9	Chrysene ^b	ND	720	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg		
206-44-0	Fluoranthene	ND	360	ug/kg		
86-73-7	Fluorene	ND	360	ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	ND	72	ug/kg		
91-20-3	Naphthalene	ND	360	ug/kg		
90-12-0	1-Methylnaphthalene	ND	360	ug/kg		
91-57-6	2-Methylnaphthalene	ND	360	ug/kg		
85-01-8	Phenanthrene	ND	360	ug/kg		
129-00-0	Pyrene	174	360	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		37-158%
92-94-4	p-Terphenyl	89%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

(b) Elevated reporting limits due to matrix interference.

CMMS 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-03-Q1
 Lab Sample ID: F11333-10
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
 Date Received: 10/27/01
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE006098.D	1	11/06/01	MRE	11/02/01	OP4114	GEE274
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.0	ug/l	u
208-96-8	Acenaphthylene	ND	4.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		33-141%
92-94-4	p-Terphenyl	60%		31-122%

CMU 6/21/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q2
 Lab Sample ID: F12178-1
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010106.D	1	02/07/02	MRE	02/06/02	OP4611	GAA455
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	U
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	76%		33-141%
92-94-4	p-Terphenyl	50%		31-122%

Crucio 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18'-Q2
 Lab Sample ID: F12178-2
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 87.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE007143.D	1	02/05/02	MRE	02/01/02	OP4586	GEE328
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	790	ug/kg	U	
208-96-8	Acenaphthylene	ND	790	ug/kg	↓	
120-12-7	Anthracene	ND	390	ug/kg		
56-55-3	Benzo(a)anthracene	161	390	ug/kg	J	<
50-32-8	Benzo(a)pyrene	97.7	79	ug/kg	=	
205-99-2	Benzo(b)fluoranthene	54.4	79	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	79	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	42.3	79	ug/kg	J	<
218-01-9	Chrysene	ND	390	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	79	ug/kg	U	
206-44-0	Fluoranthene	448	390	ug/kg	=	
86-73-7	Fluorene	ND	390	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	79	ug/kg		
91-20-3	Naphthalene	ND	390	ug/kg		
90-12-0	1-Methylnaphthalene	ND	390	ug/kg	↓	
91-57-6	2-Methylnaphthalene	ND	390	ug/kg		
85-01-8	Phenanthrene	352	390	ug/kg	J	
129-00-0	Pyrene	443	390	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		37-158%
92-94-4	p-Terphenyl	96%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMMS 6/27/02

ND = Not detected
 RL = Reporting Limit
 = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q2
 Lab Sample ID: F12178-3
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 91.1

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE007144.D	1	02/05/02	MRE	02/01/02	OP4586	GEE328
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	680	ug/kg	U	
208-96-8	Acenaphthylene	ND	680	ug/kg		
120-12-7	Anthracene	ND	340	ug/kg	↓	
56-55-3	Benzo(a)anthracene	ND	340	ug/kg	↓	
50-32-8	Benzo(a)pyrene	55.5	68	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	48.5	68	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	68	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	44.5	68	ug/kg	J	<
218-01-9	Chrysene	ND	340	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	68	ug/kg		
206-44-0	Fluoranthene	ND	340	ug/kg		
86-73-7	Fluorene	ND	340	ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	ND	68	ug/kg		
91-20-3	Naphthalene	ND	340	ug/kg		
90-12-0	1-Methylnaphthalene	ND	340	ug/kg		
91-57-6	2-Methylnaphthalene	ND	340	ug/kg		
85-01-8	Phenanthrene	ND	340	ug/kg	↓	
129-00-0	Pyrene	178	340	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		37-158%
92-94-4	p-Terphenyl	98%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

Cms 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q2
 Lab Sample ID: F12178-4
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 88.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE007145.D	1	02/05/02	MRE	02/01/02	OP4586	GEE328
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	720	ug/kg	U	
208-96-8	Acenaphthylene	ND	720	ug/kg		
120-12-7	Anthracene	ND	360	ug/kg		
56-55-3	Benzo(a)anthracene	ND	360	ug/kg		
50-32-8	Benzo(a)pyrene	69.6	72	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	52.7	72	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	72	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	49.8	72	ug/kg	J	<
218-01-9	Chrysene	ND	360	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	U	
206-44-0	Fluoranthene	271	360	ug/kg	J	<
86-73-7	Fluorene	ND	360	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	72	ug/kg		
91-20-3	Naphthalene	ND	360	ug/kg		
90-12-0	1-Methylnaphthalene	ND	360	ug/kg		
91-57-6	2-Methylnaphthalene	ND	360	ug/kg		
85-01-8	Phenanthrene	ND	360	ug/kg		
129-00-0	Pyrene	263	360	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		37-158%
92-94-4	p-Terphenyl	101%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

02/06/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-18'-Q2
 Lab Sample ID: F12178-5
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 88.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE007160.D	40	02/06/02	MRE	02/01/02	OP4586	GEE329
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	20400	31000	ug/kg	J	M
208-96-8	Acenaphthylene	ND	31000	ug/kg	U	
120-12-7	Anthracene	27700	16000	ug/kg	J	M
56-55-3	Benzo(a)anthracene	30200	16000	ug/kg		M
50-32-8	Benzo(a)pyrene	13000	3100	ug/kg		M
205-99-2	Benzo(b)fluoranthene	7260	3100	ug/kg		M
191-24-2	Benzo(g,h,i)perylene	3050	3100	ug/kg	J	< M
207-08-9	Benzo(k)fluoranthene	6170	3100	ug/kg		M
218-01-9	Chrysene	17400	16000	ug/kg		M
53-70-3	Dibenzo(a,h)anthracene	913	3100	ug/kg	J	< M
206-44-0	Fluoranthene	119000	16000	ug/kg		M
86-73-7	Fluorene	17400	16000	ug/kg		M
193-39-5	Indeno(1,2,3-cd)pyrene	3460	3100	ug/kg		M
91-20-3	Naphthalene	ND	16000	ug/kg	U	
90-12-0	1-Methylnaphthalene	ND	16000	ug/kg	U	
91-57-6	2-Methylnaphthalene	7920	16000	ug/kg	J	< M
85-01-8	Phenanthrene	106000	16000	ug/kg		M
129-00-0	Pyrene	92900	16000	ug/kg		M

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^b		37-158%
92-94-4	p-Terphenyl	0% ^b		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

(b) Outside control limits due to dilution.

Cmu06/27/02

ND = Not detected

RL = Reporting Limit

B = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

M = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q2
 Lab Sample ID: F12178-6
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 91.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE007159.D	2	02/06/02	MRE	02/01/02	OP4586	GEE329
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	709	1500	ug/kg	J
208-96-8	Acenaphthylene	ND	1500	ug/kg	U
120-12-7	Anthracene	1050	730	ug/kg	=
56-55-3	Benzo(a)anthracene	1310	730	ug/kg	=
50-32-8	Benzo(a)pyrene	528	150	ug/kg	=
205-99-2	Benzo(b)fluoranthene	319	150	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	132	150	ug/kg	J
207-08-9	Benzo(k)fluoranthene	267	150	ug/kg	=
218-01-9	Chrysene	772	730	ug/kg	=
53-70-3	Dibenzo(a,h)anthracene	ND	150	ug/kg	U
206-44-0	Fluoranthene	4930	730	ug/kg	=
86-73-7	Fluorene	670	730	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	155	150	ug/kg	=
91-20-3	Naphthalene	ND	730	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	730	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	730	ug/kg	=
85-01-8	Phenanthrene	4180	730	ug/kg	=
129-00-0	Pyrene	3800	730	ug/kg	=

Qual
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		37-158%
92-94-4	p-Terphenyl	124%		59-149%

(a) All hits confirmed by spectral match using a diode array detector. Dilution required due matrix interference.

Cmo 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-66'-Q2
 Lab Sample ID: F12178-7
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 92.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE007158.D	1	02/06/02	MRE	02/01/02	OP4586	GEE329
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	720	ug/kg	u	
208-96-8	Acenaphthylene	ND	720	ug/kg		
120-12-7	Anthracene	ND	360	ug/kg		
56-55-3	Benzo(a)anthracene	ND	360	ug/kg		
50-32-8	Benzo(a)pyrene	ND	72	ug/kg		
205-99-2	Benzo(b)fluoranthene	ND	72	ug/kg		
191-24-2	Benzo(g,h,i)perylene	ND	72	ug/kg		
207-08-9	Benzo(k)fluoranthene	ND	72	ug/kg		
218-01-9	Chrysene	ND	360	ug/kg		
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	✓	
206-44-0	Fluoranthene	204	360	ug/kg	J	<
86-73-7	Fluorene	ND	360	ug/kg	u	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	72	ug/kg		
91-20-3	Naphthalene	ND	360	ug/kg		
90-12-0	1-Methylnaphthalene	ND	360	ug/kg		
91-57-6	2-Methylnaphthalene	ND	360	ug/kg		
85-01-8	Phenanthrene	ND	360	ug/kg	✓	
129-00-0	Pyrene	168	360	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		37-158%
92-94-4	p-Terphenyl	94%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMUO 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q2
 Lab Sample ID: F12178-8
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 89.8

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE007152.D	1	02/05/02	MRE	02/01/02	OP4586	GEE328
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	700	ug/kg	U
208-96-8	Acenaphthylene	ND	700	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	
56-55-3	Benzo(a)anthracene	ND	350	ug/kg	↓
50-32-8	Benzo(a)pyrene	63.8	70	ug/kg	J
205-99-2	Benzo(b)fluoranthene	45.4	70	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	U
207-08-9	Benzo(k)fluoranthene	41.6	70	ug/kg	J
218-01-9	Chrysene	ND	350	ug/kg	U
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	
206-44-0	Fluoranthene	ND	350	ug/kg	
86-73-7	Fluorene	ND	350	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	
85-01-8	Phenanthrene	ND	350	ug/kg	
129-00-0	Pyrene	ND	350	ug/kg	↓

Qual
Code

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		37-158%
92-94-4	p-Terphenyl	100%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMMO 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q2
 Lab Sample ID: F12178-9
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: 89.0

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EE007153.D	1	02/05/02	MRE	02/01/02	OP4586	GEE328
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	730	ug/kg	U	
208-96-8	Acenaphthylene	ND	730	ug/kg		
120-12-7	Anthracene	ND	360	ug/kg		
56-55-3	Benzo(a)anthracene	ND	360	ug/kg		
50-32-8	Benzo(a)pyrene	60.4	73	ug/kg	J	<
205-99-2	Benzo(b)fluoranthene	43.3	73	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	ND	73	ug/kg	U	
207-08-9	Benzo(k)fluoranthene	42.5	73	ug/kg	J	<
218-01-9	Chrysene	ND	360	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	73	ug/kg		
206-44-0	Fluoranthene	ND	360	ug/kg		
86-73-7	Fluorene	ND	360	ug/kg		
193-39-5	Indeno(1,2,3-cd)pyrene	ND	73	ug/kg		
91-20-3	Naphthalene	ND	360	ug/kg		
90-12-0	1-Methylnaphthalene	ND	360	ug/kg		
91-57-6	2-Methylnaphthalene	ND	360	ug/kg		
85-01-8	Phenanthrene	ND	360	ug/kg		
129-00-0	Pyrene	ND	360	ug/kg		

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		37-158%
92-94-4	p-Terphenyl	93%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMS 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q2
 Lab Sample ID: F12178-10
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
 Date Received: 01/31/02
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010107.D	1	02/07/02	MRE	02/06/02	OP4611	GAA455
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.0	ug/l	U ↓
208-96-8	Acenaphthylene	ND	4.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		33-141%
92-94-4	p-Terphenyl	53%		31-122%

02/06/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-PREEB-W-02-Q2
 Lab Sample ID: F12221-1
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010118.D	1	02/12/02	MRE	02/08/02	OP4622	GAA456
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.0	ug/l	u
208-96-8	Acenaphthylene	ND	4.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		33-141%
92-94-4	p-Terphenyl	64%		31-122%

CMD 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-72'-Q2
 Lab Sample ID: F12221-2
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 93.8

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE007226.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Codes
83-32-9	Acenaphthene	ND	700	ug/kg	U	
208-96-8	Acenaphthylene	ND	700	ug/kg		
120-12-7	Anthracene	ND	350	ug/kg		
56-55-3	Benzo(a)anthracene	ND	350	ug/kg		
50-32-8	Benzo(a)pyrene	ND	70	ug/kg		
205-99-2	Benzo(b)fluoranthene	ND	70	ug/kg		
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg		
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg		
218-01-9	Chrysene	ND	350	ug/kg		
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg		
206-44-0	Fluoranthene	180	350	ug/kg	J	<
86-73-7	Fluorene	ND	350	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg		
91-20-3	Naphthalene	ND	350	ug/kg		
90-12-0	1-Methylnaphthalene	ND	350	ug/kg		
91-57-6	2-Methylnaphthalene	ND	350	ug/kg		
85-01-8	Phenanthrene	149	350	ug/kg	J	<
129-00-0	Pyrene	139	350	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	65%		37-158%
92-94-4	p-Terphenyl	78%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

Chris 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q2
 Lab Sample ID: F12221-3
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 94.4

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	EE007227.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Anal Code
83-32-9	Acenaphthene	ND	700	ug/kg	U	
208-96-8	Acenaphthylene	ND	700	ug/kg		
120-12-7	Anthracene	ND	350	ug/kg		
56-55-3	Benzo(a)anthracene	ND	350	ug/kg		
50-32-8	Benzo(a)pyrene	83.2	70	ug/kg	=	
205-99-2	Benzo(b)fluoranthene	53.1	70	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	36.9	70	ug/kg	J	<
207-08-9	Benzo(k)fluoranthene	42.1	70	ug/kg	J	<
218-01-9	Chrysene	ND	350	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	U	
206-44-0	Fluoranthene	310	350	ug/kg	J	<
86-73-7	Fluorene	ND	350	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	37.0	70	ug/kg	J	<
91-20-3	Naphthalene	ND	350	ug/kg	U	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg		
91-57-6	2-Methylnaphthalene	ND	350	ug/kg		
85-01-8	Phenanthrene	250	350	ug/kg	J	<
129-00-0	Pyrene	266	350	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		37-158%
92-94-4	p-Terphenyl	80%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMD 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q2
 Lab Sample ID: F12221-4
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 85.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE007228.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	780	ug/kg	U	
208-96-8	Acenaphthylene	ND	780	ug/kg		
120-12-7	Anthracene	ND	390	ug/kg		
56-55-3	Benzo(a)anthracene	ND	390	ug/kg		
50-32-8	Benzo(a)pyrene	82.3	78	ug/kg	=	
205-99-2	Benzo(b)fluoranthene	61.8	78	ug/kg	J	<
191-24-2	Benzo(g,h,i)perylene	43.6	78	ug/kg	J	<
207-08-9	Benzo(k)fluoranthene	45.8	78	ug/kg	J	<
218-01-9	Chrysene	ND	390	ug/kg	U	
53-70-3	Dibenzo(a,h)anthracene	ND	78	ug/kg		
206-44-0	Fluoranthene	358	390	ug/kg	J	<
86-73-7	Fluorene	ND	390	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	78	ug/kg		
91-20-3	Naphthalene	ND	390	ug/kg		
90-12-0	1-Methylnaphthalene	ND	390	ug/kg		
91-57-6	2-Methylnaphthalene	ND	390	ug/kg		
85-01-8	Phenanthrene	303	390	ug/kg	J	<
129-00-0	Pyrene	306	390	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		37-158%
92-94-4	p-Terphenyl	84%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

Chris 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q2
 Lab Sample ID: F12221-5
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 93.4

Run #1 *	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	EE007229.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	700	ug/kg	U	
208-96-8	Acenaphthylene	ND	700	ug/kg	↓	
120-12-7	Anthracene	ND	350	ug/kg	↓	
56-55-3	Benzo(a)anthracene	221	350	ug/kg	J	<
50-32-8	Benzo(a)pyrene	116	70	ug/kg	=	
205-99-2	Benzo(b)fluoranthene	94.6	70	ug/kg	=	
191-24-2	Benzo(g,h,i)perylene	62.3	70	ug/kg	J	<
207-08-9	Benzo(k)fluoranthene	85.1	70	ug/kg	=	
218-01-9	Chrysene	248	350	ug/kg	J	<
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	U	
206-44-0	Fluoranthene	761	350	ug/kg	=	
86-73-7	Fluorene	ND	350	ug/kg	U	
193-39-5	Indeno(1,2,3-cd)pyrene	40.6	70	ug/kg	J	<
91-20-3	Naphthalene	ND	350	ug/kg	U	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	↓	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	↓	
85-01-8	Phenanthrene	681	350	ug/kg	=	
129-00-0	Pyrene	612	350	ug/kg	=	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		37-158%
92-94-4	p-Terphenyl	89%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

01106/bja

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q2
 Lab Sample ID: F12221-6
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 85.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE007230.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	770	ug/kg	U.
208-96-8	Acenaphthylene	ND	770	ug/kg	
120-12-7	Anthracene	ND	380	ug/kg	
56-55-3	Benzo(a)anthracene	ND	380	ug/kg	
50-32-8	Benzo(a)pyrene	ND	77	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	77	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	77	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	77	ug/kg	
218-01-9	Chrysene	ND	380	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	77	ug/kg	
206-44-0	Fluoranthene	ND	380	ug/kg	
86-73-7	Fluorene	ND	380	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	77	ug/kg	
91-20-3	Naphthalene	ND	380	ug/kg	
90-12-0	1-Methylnaphthalene	ND	380	ug/kg	
91-57-6	2-Methylnaphthalene	ND	380	ug/kg	
85-01-8	Phenanthrene	ND	380	ug/kg	
129-00-0	Pyrene	ND	380	ug/kg	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		37-158%
92-94-4	p-Terphenyl	86%		59-149%

Cmm 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43'-Q2
 Lab Sample ID: F12221-7
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 92.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE007231.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	710	ug/kg	u
208-96-8	Acenaphthylene	ND	710	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	71	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	71	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	71	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	71	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	71	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		37-158%
92-94-4	p-Terphenyl	97%		59-149%

CMUO 6/27/02

ND = Not detected
 DL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72'-Q2
 Lab Sample ID: F12221-8
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 94.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE007232.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	690	ug/kg	u
208-96-8	Acenaphthylene	ND	690	ug/kg	
120-12-7	Anthracene	ND	340	ug/kg	
56-55-3	Benzo(a)anthracene	ND	340	ug/kg	
50-32-8	Benzo(a)pyrene	ND	69	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	69	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	69	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	69	ug/kg	
218-01-9	Chrysene	ND	340	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	69	ug/kg	
206-44-0	Fluoranthene	ND	340	ug/kg	
86-73-7	Fluorene	ND	340	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	69	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
90-12-0	1-Methylnaphthalene	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg	
85-01-8	Phenanthrene	ND	340	ug/kg	
129-00-0	Pyrene	ND	340	ug/kg	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		37-158%
92-94-4	p-Terphenyl	87%		59-149%

02/06/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-100'-Q2
 Lab Sample ID: F12221-9
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: 92.0

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	EE007234.D	1	02/13/02	MRE	02/12/02	OP4632	GEE333

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	u
208-96-8	Acenaphthylene	ND	720	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	72	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	72	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	72	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	72	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	72	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		37-158%
92-94-4	p-Terphenyl	92%		59-149%

CMS 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-02-Q2
 Lab Sample ID: F12221-10
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
 Date Received: 02/05/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010119.D	1	02/12/02	MRE	02/08/02	OP4622	GAA456
Run #2							

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.0	ug/l	u ↓
208-96-8	Acenaphthylene	ND	4.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		33-141%
92-94-4	p-Terphenyl	70%		31-122%

CMW 6/2/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q3
 Lab Sample ID: F13055-1
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010632.D	1	05/07/02	MRE	05/06/02	OP5089	GAA490
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.0	ug/l	u ↓
208-96-8	Acenaphthylene	ND	4.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.20	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.20	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.20	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.20	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.20	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.20	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		33-141%
92-94-4	p-Terphenyl	53%		31-122%

ommo 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q3
 Lab Sample ID: F13055-2
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 89.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010706.D	1	05/14/02	MRE	05/04/02	OP5087	GAA494
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	730	ug/kg	u	
208-96-8	Acenaphthylene	ND	730	ug/kg	↓	
120-12-7	Anthracene	ND	360	ug/kg	J	<
56-55-3	Benzo(a)anthracene	73.5	360	ug/kg	J	
50-32-8	Benzo(a)pyrene	ND	73	ug/kg	u	
205-99-2	Benzo(b)fluoranthene	ND	73	ug/kg	↓	
191-24-2	Benzo(g,h,i)perylene	ND	73	ug/kg	↓	
207-08-9	Benzo(k)fluoranthene	ND	73	ug/kg	↓	
218-01-9	Chrysene	109	360	ug/kg	J	<
53-70-3	Dibenzo(a,h)anthracene	ND	73	ug/kg	u	
206-44-0	Fluoranthene	198	360	ug/kg	J	<
86-73-7	Fluorene	ND	360	ug/kg	u	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	73	ug/kg	↓	
91-20-3	Naphthalene	ND	360	ug/kg	↓	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	↓	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓	
85-01-8	Phenanthrene	161	360	ug/kg	J	<
129-00-0	Pyrene	170	360	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		37-158%
92-94-4	p-Terphenyl	99%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMMS 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q3
 Lab Sample ID: F13055-3
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 94.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010680.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	31.0 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	680	ug/kg	u
208-96-8	Acenaphthylene	ND	680	ug/kg	
120-12-7	Anthracene	ND	340	ug/kg	
56-55-3	Benzo(a)anthracene	ND	340	ug/kg	
50-32-8	Benzo(a)pyrene	ND	68	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	68	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	68	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	68	ug/kg	
218-01-9	Chrysene	ND	340	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	68	ug/kg	
206-44-0	Fluoranthene	102	340	ug/kg	J
86-73-7	Fluorene	ND	340	ug/kg	u
193-39-5	Indeno(1,2,3-cd)pyrene	ND	68	ug/kg	
91-20-3	Naphthalene	ND	340	ug/kg	
90-12-0	1-Methylnaphthalene	ND	340	ug/kg	
91-57-6	2-Methylnaphthalene	ND	340	ug/kg	
85-01-8	Phenanthrene	101	340	ug/kg	J
129-00-0	Pyrene	88.9	340	ug/kg	J

Qual
Code

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		37-158%
92-94-4	p-Terphenyl	96%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMMO 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q3
 Lab Sample ID: F13055-4
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 93.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010681.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	31.0 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q	Qual Code
83-32-9	Acenaphthene	ND	690	ug/kg	u	
208-96-8	Acenaphthylene	ND	690	ug/kg		
120-12-7	Anthracene	ND	350	ug/kg		
56-55-3	Benzo(a)anthracene	ND	350	ug/kg		
50-32-8	Benzo(a)pyrene	ND	69	ug/kg		
205-99-2	Benzo(b)fluoranthene	ND	69	ug/kg		
191-24-2	Benzo(g,h,i)perylene	ND	69	ug/kg		
207-08-9	Benzo(k)fluoranthene	ND	69	ug/kg		
218-01-9	Chrysene	ND	350	ug/kg		
53-70-3	Dibenzo(a,h)anthracene	ND	69	ug/kg	✓	
206-44-0	Fluoranthene	108	350	ug/kg	J	<
86-73-7	Fluorene	ND	350	ug/kg	u	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	69	ug/kg		
91-20-3	Naphthalene	ND	350	ug/kg		
90-12-0	1-Methylnaphthalene	ND	350	ug/kg		
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	✓	
85-01-8	Phenanthrene	107	350	ug/kg	J	<
129-00-0	Pyrene	90.1	350	ug/kg	J	<

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		37-158%
92-94-4	p-Terphenyl	88%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMMO 6/17/02

ND = Not detected

RL = Reporting Limit

B = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0027

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q3
 Lab Sample ID: F13055-5
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 87.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010707.D	1	05/14/02	MRE	05/04/02	OP5087	GAA494
Run #2							

	Initial Weight	Final Volume
Run #1	31.0 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1340	740	ug/kg	=
208-96-8	Acenaphthylene	ND	740	ug/kg	U
120-12-7	Anthracene	249	370	ug/kg	J
56-55-3	Benzo(a)anthracene	225	370	ug/kg	J
50-32-8	Benzo(a)pyrene	130	74	ug/kg	=
205-99-2	Benzo(b)fluoranthene	75.7	74	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	37.5	74	ug/kg	J
207-08-9	Benzo(k)fluoranthene	62.5	74	ug/kg	J
218-01-9	Chrysene	187	370	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	74	ug/kg	U
206-44-0	Fluoranthene	687	370	ug/kg	=
86-73-7	Fluorene	1040	370	ug/kg	=
193-39-5	Indeno(1,2,3-cd)pyrene	44.3	74	ug/kg	J
91-20-3	Naphthalene	ND	370	ug/kg	U
90-12-0	1-Methylnaphthalene	156	370	ug/kg	J
91-57-6	2-Methylnaphthalene ^b	ND	740	ug/kg	U
85-01-8	Phenanthrene	2170	370	ug/kg	=
129-00-0	Pyrene	574	370	ug/kg	=

*Qual
Center*

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		37-158%
92-94-4	p-Terphenyl	94%		59-149%

- (a) All hits confirmed by spectral match using a diode array detector.
 (b) Elevated reporting limits due to matrix interference.

CRM 6/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3
 Lab Sample ID: F13055-6
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: 93.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010683.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.8 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	690	ug/kg	U
208-96-8	Acenaphthylene	ND	690	ug/kg	↓
120-12-7	Anthracene	ND	350	ug/kg	✓
56-55-3	Benzo(a)anthracene	167	350	ug/kg	J
50-32-8	Benzo(a)pyrene	83.5	69	ug/kg	=
205-99-2	Benzo(b)fluoranthene	64.3	69	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	47.7	69	ug/kg	J
207-08-9	Benzo(k)fluoranthene	56.6	69	ug/kg	J
218-01-9	Chrysene	162	350	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	69	ug/kg	U
206-44-0	Fluoranthene	574	350	ug/kg	=
86-73-7	Fluorene	ND	350	ug/kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	69	ug/kg	↓
91-20-3	Naphthalene	ND	350	ug/kg	↓
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	↓
85-01-8	Phenanthrene	532	350	ug/kg	=
129-00-0	Pyrene	487	350	ug/kg	=

Qual
Codes

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		37-158%
92-94-4	p-Terphenyl	91%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMU 6/27/02

0035

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q3
 Lab Sample ID: F13055-7
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010633.D	1	05/07/02	MRE	05/06/02	OP5089	GAA490
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	u
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	56%		33-141%
92-94-4	p-Terphenyl	51%		31-122%

CMW 6/21/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of analyte

Report of Analysis

Client Sample ID: 011-04-PREEB-W-02-Q3
 Lab Sample ID: F13055-8
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010634.D	1	05/07/02	MRE	05/06/02	OP5089	GAA490
Run #2							

Run #	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	u
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		33-141%
92-94-4	p-Terphenyl	69%		31-122%

Cmw 6/27/02

ND = Not detected
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank

0042

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
 Lab Sample ID: F13055-9
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 93.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010685.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	700	ug/kg	U
208-96-8	Acenaphthylene	ND	700	ug/kg	↓
120-12-7	Anthracene	ND	350	ug/kg	↓
56-55-3	Benzo(a)anthracene	113	350	ug/kg	J
50-32-8	Benzo(a)pyrene	51.0	70	ug/kg	J
205-99-2	Benzo(b)fluoranthene	36.7	70	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	U
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg	U
218-01-9	Chrysene	133	350	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	U
206-44-0	Fluoranthene	404	350	ug/kg	=
86-73-7	Fluorene	ND	350	ug/kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg	↓
91-20-3	Naphthalene	ND	350	ug/kg	↓
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	↓
85-01-8	Phenanthrene	392	350	ug/kg	=
129-00-0	Pyrene	343	350	ug/kg	J

*Qual
Code*

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		37-158%
92-94-4	p-Terphenyl	88%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMUO 6/27/02

ND = Not detected
 RL = Reporting Limit
 F = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of compound

Report of Analysis

Client Sample ID: 011-04-MP-FD1-S-100'-Q3
 Lab Sample ID: F13055-10
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 91.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010686.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	30.7 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	268	710	ug/kg	J
208-96-8	Acenaphthylene	ND	710	ug/kg	U
120-12-7	Anthracene	279	360	ug/kg	J
56-55-3	Benzo(a)anthracene	324	360	ug/kg	J
50-32-8	Benzo(a)pyrene	142	71	ug/kg	=
205-99-2	Benzo(b)fluoranthene	96.2	71	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	49.2	71	ug/kg	J
207-08-9	Benzo(k)fluoranthene	82.2	71	ug/kg	=
218-01-9	Chrysene	308	360	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	U
206-44-0	Fluoranthene	1380	360	ug/kg	=
86-73-7	Fluorene	272	360	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	43.4	71	ug/kg	J
91-20-3	Naphthalene	ND	360	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓
85-01-8	Phenanthrene	1400	360	ug/kg	=
129-00-0	Pyrene	1170	360	ug/kg	=

Qual
Code

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		37-158%
92-94-4	p-Terphenyl	100%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMM 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0049

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-18'-Q3
 Lab Sample ID: F13055-11
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 87.6

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010708.D	1	05/14/02	MRE	05/04/02	OP5087	GAA494
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.6 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	1430	750	ug/kg	=
208-96-8	Acenaphthylene	ND	750	ug/kg	U
120-12-7	Anthracene	236	370	ug/kg	J
56-55-3	Benzo(a)anthracene	210	370	ug/kg	J
50-32-8	Benzo(a)pyrene	116	75	ug/kg	=
205-99-2	Benzo(b)fluoranthene	68.5	75	ug/kg	J
191-24-2	Benzo(g,h,i)perylene	31.7	75	ug/kg	J
207-08-9	Benzo(k)fluoranthene	50.7	75	ug/kg	J
218-01-9	Chrysene	248	370	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	75	ug/kg	U
206-44-0	Fluoranthene	619	370	ug/kg	=
86-73-7	Fluorene	1040	370	ug/kg	=
193-39-5	Indeno(1,2,3-cd)pyrene	37.9	75	ug/kg	J
91-20-3	Naphthalene	ND	370	ug/kg	U
90-12-0	1-Methylnaphthalene	187	370	ug/kg	J
91-57-6	2-Methylnaphthalene ^b	ND	740	ug/kg	U
85-01-8	Phenanthrene	2060	370	ug/kg	=
129-00-0	Pyrene	517	370	ug/kg	=

Qual Code

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		37-158%
92-94-4	p-Terphenyl	94%		59-149%

- (a) All hits confirmed by spectral match using a diode array detector.
 (b) Elevated reporting limits due to matrix interference.

CMM 6/27/02

0053

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q3
 Lab Sample ID: F13055-12
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 90.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010690.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.8 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	U
208-96-8	Acenaphthylene	ND	720	ug/kg	U
120-12-7	Anthracene	298	360	ug/kg	J
56-55-3	Benzo(a)anthracene	426	360	ug/kg	=
50-32-8	Benzo(a)pyrene	190	72	ug/kg	=
205-99-2	Benzo(b)fluoranthene	125	72	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	73.9	72	ug/kg	=
207-08-9	Benzo(k)fluoranthene	108	72	ug/kg	=
218-01-9	Chrysene	369	360	ug/kg	=
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	U
206-44-0	Fluoranthene	1670	360	ug/kg	=
86-73-7	Fluorene	234	360	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	55.9	72	ug/kg	J
91-20-3	Naphthalene	ND	360	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓
85-01-8	Phenanthrene	1500	360	ug/kg	=
129-00-0	Pyrene	1430	360	ug/kg	=

*Quel
Code*

2

*<
<*

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		37-158%
92-94-4	p-Terphenyl	110%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMU 6/27/02

ND = Not detected

RL = Reporting Limit

B = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-66'-Q3
 Lab Sample ID: F13055-13
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 90.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010691.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	31.2 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	710	ug/kg	U
208-96-8	Acenaphthylene	ND	710	ug/kg	U
120-12-7	Anthracene	164	350	ug/kg	J
56-55-3	Benzo(a)anthracene	305	350	ug/kg	J
50-32-8	Benzo(a)pyrene	135	71	ug/kg	=
205-99-2	Benzo(b)fluoranthene	91.4	71	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	48.8	71	ug/kg	J
207-08-9	Benzo(k)fluoranthene	80.4	71	ug/kg	=
218-01-9	Chrysene	292	350	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	U
206-44-0	Fluoranthene	968	350	ug/kg	=
86-73-7	Fluorene	99.3	350	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	35.8	71	ug/kg	J
91-20-3	Naphthalene	ND	350	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	↓
85-01-8	Phenanthrene	749	350	ug/kg	=
129-00-0	Pyrene	828	350	ug/kg	=

*Qual
Code*

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		37-158%
92-94-4	p-Terphenyl	97%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMUO 6/27/02

0061

ND = Not detected

RL = Reporting Limit

U = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18'-Q3
 Lab Sample ID: F13055-14
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010711.D	1	05/14/02	MRE	05/04/02	OP5087	GAA494
Run #2							

	Initial Weight	Final Volume
Run #1	31.8 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	710	ug/kg	u
208-96-8	Acenaphthylene	ND	710	ug/kg	↓
120-12-7	Anthracene	ND	350	ug/kg	↓
56-55-3	Benzo(a)anthracene	47.4	350	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	71	ug/kg	u
205-99-2	Benzo(b)fluoranthene	ND	71	ug/kg	↓
191-24-2	Benzo(g,h,i)perylene	ND	71	ug/kg	↓
207-08-9	Benzo(k)fluoranthene	ND	71	ug/kg	↓
218-01-9	Chrysene	ND	350	ug/kg	↓
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	↓
206-44-0	Fluoranthene	120	350	ug/kg	J
86-73-7	Fluorene	ND	350	ug/kg	u
193-39-5	Indeno(1,2,3-cd)pyrene	ND	71	ug/kg	↓
91-20-3	Naphthalene	ND	350	ug/kg	↓
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	↓
85-01-8	Phenanthrene	82.0	350	ug/kg	J
129-00-0	Pyrene	102	350	ug/kg	J

*Qual
Code*

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		37-158%
92-94-4	p-Terphenyl	92%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

Cmu 06/27/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0065

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q3
 Lab Sample ID: F13055-15
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 94.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010694.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	700	ug/kg	u
208-96-8	Acenaphthylene	ND	700	ug/kg	
120-12-7	Anthracene	ND	350	ug/kg	↓
56-55-3	Benzo(a)anthracene	73.1	350	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	70	ug/kg	u
205-99-2	Benzo(b)fluoranthene	ND	70	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	70	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	70	ug/kg	
218-01-9	Chrysene	ND	350	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	70	ug/kg	↓
206-44-0	Fluoranthene	254	350	ug/kg	J
86-73-7	Fluorene	ND	350	ug/kg	u
193-39-5	Indeno(1,2,3-cd)pyrene	ND	70	ug/kg	
91-20-3	Naphthalene	ND	350	ug/kg	
90-12-0	1-Methylnaphthalene	ND	350	ug/kg	
91-57-6	2-Methylnaphthalene	ND	350	ug/kg	↓
85-01-8	Phenanthrene	155	350	ug/kg	J
129-00-0	Pyrene	224	350	ug/kg	J

*Qual
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	77%		37-158%
92-94-4	p-Terphenyl	89%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMM 6/27/02

0069

ND = Not detected

RL = Reporting Limit

F = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q3
 Lab Sample ID: F13055-16
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 92.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010695.D	1	05/13/02	MRE	05/04/02	OP5087	GAA493
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.3 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	U
208-96-8	Acenaphthylene	ND	720	ug/kg	U
120-12-7	Anthracene	230	360	ug/kg	J
56-55-3	Benzo(a)anthracene	349	360	ug/kg	J
50-32-8	Benzo(a)pyrene	173	72	ug/kg	=
205-99-2	Benzo(b)fluoranthene	105	72	ug/kg	=
191-24-2	Benzo(g,h,i)perylene	46.2	72	ug/kg	J
207-08-9	Benzo(k)fluoranthene	83.8	72	ug/kg	=
218-01-9	Chrysene	420	360	ug/kg	=
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	U
206-44-0	Fluoranthene	1210	360	ug/kg	=
86-73-7	Fluorene	141	360	ug/kg	J
193-39-5	Indeno(1,2,3-cd)pyrene	40.2	72	ug/kg	J
91-20-3	Naphthalene	ND	360	ug/kg	U
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓
85-01-8	Phenanthrene	1000	360	ug/kg	=
129-00-0	Pyrene	1040	360	ug/kg	=

*Qual
Code*

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%		37-158%
92-94-4	p-Terphenyl	102%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMUO 6/27/02

ND = Not detected
 RL = Reporting Limit
 F = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0073

Report of Analysis

Client Sample ID: 011-04-MP-FD2-S-100'-Q3
 Lab Sample ID: F13055-17
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: 89.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010712.D	1	05/14/02	MRE	05/04/02	OP5087	GAA494
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.6 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	730	ug/kg	U
208-96-8	Acenaphthylene	ND	730	ug/kg	↓
120-12-7	Anthracene	ND	370	ug/kg	J
56-55-3	Benzo(a)anthracene	42.7	370	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	73	ug/kg	U
205-99-2	Benzo(b)fluoranthene	ND	73	ug/kg	↓
191-24-2	Benzo(g,h,i)perylene	ND	73	ug/kg	↓
207-08-9	Benzo(k)fluoranthene	ND	73	ug/kg	↓
218-01-9	Chrysene	ND	370	ug/kg	↓
53-70-3	Dibenzo(a,h)anthracene	ND	73	ug/kg	↓
206-44-0	Fluoranthene	113	370	ug/kg	J
86-73-7	Fluorene	ND	370	ug/kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	ND	73	ug/kg	↓
91-20-3	Naphthalene	ND	370	ug/kg	↓
90-12-0	1-Methylnaphthalene	ND	370	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	↓
85-01-8	Phenanthrene	85.7	370	ug/kg	J
129-00-0	Pyrene	96.3	370	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		37-158%
92-94-4	p-Terphenyl	90%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

CMUO 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q3
 Lab Sample ID: F13055-18
 Matrix: AQ - Field Blank Soil
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010635.D	1	05/07/02	MRE	05/06/02	OP5089	GAA490
Run #2							

	Initial Volume	Final Volume
Run #1	890 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	U
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		33-141%
92-94-4	p-Terphenyl	77%		31-122%

05/06/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-PREEB-W-03-Q3
 Lab Sample ID: F13066-1
 Matrix: AQ - Field Blank Water
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010645.D	1	05/07/02	MRE	05/06/02	OP5089	GAA490
Run #2							

Run #	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	u
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	76%		33-141%
92-94-4	p-Terphenyl	74%		31-122%

CMO 6/15/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q3
 Lab Sample ID: F13066-2
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: 87.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010697.D	1	05/14/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	740	ug/kg	u
208-96-8	Acenaphthylene	ND	740	ug/kg	
120-12-7	Anthracene	ND	370	ug/kg	
56-55-3	Benzo(a)anthracene	ND	370	ug/kg	
50-32-8	Benzo(a)pyrene	ND	74	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	74	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	74	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	74	ug/kg	
218-01-9	Chrysene	ND	370	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	74	ug/kg	
206-44-0	Fluoranthene	ND	370	ug/kg	
86-73-7	Fluorene	ND	370	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	74	ug/kg	
91-20-3	Naphthalene	ND	370	ug/kg	
90-12-0	1-Methylnaphthalene	ND	370	ug/kg	
91-57-6	2-Methylnaphthalene	ND	370	ug/kg	
85-01-8	Phenanthrene	ND	370	ug/kg	
129-00-0	Pyrene	ND	370	ug/kg	↓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		37-158%
92-94-4	p-Terphenyl	97%		59-149%

CMUO 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-43'-Q3
 Lab Sample ID: F13066-3
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: 91.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010698.D	1	05/14/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	720	ug/kg	U
208-96-8	Acenaphthylene	ND	720	ug/kg	
120-12-7	Anthracene	ND	360	ug/kg	
56-55-3	Benzo(a)anthracene	ND	360	ug/kg	
50-32-8	Benzo(a)pyrene	ND	72	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	72	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	72	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	72	ug/kg	
218-01-9	Chrysene	ND	360	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	72	ug/kg	
206-44-0	Fluoranthene	ND	360	ug/kg	
86-73-7	Fluorene	ND	360	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	72	ug/kg	
91-20-3	Naphthalene	ND	360	ug/kg	
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	
85-01-8	Phenanthrene	ND	360	ug/kg	
129-00-0	Pyrene	ND	360	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%		37-158%
92-94-4	p-Terphenyl	94%		59-149%

05/06/21/02

ND = Not detected

RL = Reporting Limit

B = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-72'-Q3
 Lab Sample ID: F13066-4
 Matrix: SO - Soil
 Method: EPA 8310 SW846 3550B
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: 93.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	AA010699.D	1	05/14/02	MRE	05/04/02	OP5087	GAA493
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	5.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	710	ug/kg	u
208-96-8	Acenaphthylene	ND	710	ug/kg	↓
120-12-7	Anthracene	ND	360	ug/kg	↓
56-55-3	Benzo(a)anthracene	64.3	360	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	71	ug/kg	u
205-99-2	Benzo(b)fluoranthene	ND	71	ug/kg	↓
191-24-2	Benzo(g,h,i)perylene	ND	71	ug/kg	↓
207-08-9	Benzo(k)fluoranthene	ND	71	ug/kg	↓
218-01-9	Chrysene	ND	360	ug/kg	↓
53-70-3	Dibenzo(a,h)anthracene	ND	71	ug/kg	↓
206-44-0	Fluoranthene	212	360	ug/kg	J
86-73-7	Fluorene	ND	360	ug/kg	u
193-39-5	Indeno(1,2,3-cd)pyrene	ND	71	ug/kg	↓
91-20-3	Naphthalene	ND	360	ug/kg	↓
90-12-0	1-Methylnaphthalene	ND	360	ug/kg	↓
91-57-6	2-Methylnaphthalene	ND	360	ug/kg	↓
85-01-8	Phenanthrene	160	360	ug/kg	J
129-00-0	Pyrene	167	360	ug/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	79%		37-158%
92-94-4	p-Terphenyl	89%		59-149%

(a) All hits confirmed by spectral match using a diode array detector.

cmo 6/21/02

ND = Not detected

RL = Reporting Limit

B = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates value exceeds calibration range

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q3
 Lab Sample ID: F13066-5
 Matrix: AQ - Field Blank Water
 Method: EPA 8310 SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
 Date Received: 05/02/02
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	AA010647.D	1	05/07/02	MRE	05/06/02	OP5089	GAA490
Run #2							

Run #	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2		

Polynuclear Aromatic Hydrocarbons

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	4.4	ug/l	u
208-96-8	Acenaphthylene	ND	4.4	ug/l	
120-12-7	Anthracene	ND	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.22	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.22	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.22	ug/l	
218-01-9	Chrysene	ND	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.22	ug/l	
206-44-0	Fluoranthene	ND	2.2	ug/l	
86-73-7	Fluorene	ND	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.22	ug/l	
91-20-3	Naphthalene	ND	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	2.2	ug/l	
85-01-8	Phenanthrene	ND	2.2	ug/l	
129-00-0	Pyrene	ND	2.2	ug/l	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		33-141%
92-94-4	p-Terphenyl	72%		31-122%

Chris G 6/27/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

M = Indicates matrix spike recovery

PAH ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fid EPA Sample No. 16PREEBEB01
 Lab Code: PEL Case No. SAS No: SDG No.: 2204044
 Matrix: WATER Lab Sample ID: 220404401 Lab File ID: 44-1.D
 Sample wt/vol: 960 Units: ML Date Received: 05/14/02
 Concentrated Extract Volume: 1 Date Extracted: 05/14/02
 Level:(low/med) LOW Date Analyzed: 05/15/02 Time: 0949
 Percent Solids: 0 decanted: Dilution Factor: 1
 Extraction: SEPF Station ID: Pre Equipment R Method: 8310
 GPC Cleanup: (Y/N) N pH:
 Column(1): Vydac 201TP54 ID: 4.6 (mm)
 CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	RESULT	Q
91-20-3	Naphthalene	0.21	U
208-96-8	Acenaphthylene	0.21	U
90-12-0	1-Methylnaphthalene	0.21	U
91-57-6	2-Methylnaphthalene	0.21	U
83-32-9	Acenaphthene	0.21	U
86-73-7	Fluorene	0.21	U
85-01-8	Phenanthrene	0.21	U
120-12-7	Anthracene	0.21	U
206-44-0	Fluoranthene	0.21	U
129-00-0	Pyrene	0.21	U
56-55-3	Benzo(a)anthracene	0.21	U
218-01-9	Chrysene	0.21	U
205-99-2	Benzo(b)fluoranthene	0.21	U
207-08-9	Benzo(k)fluoranthene	0.21	U
50-32-8	Benzo(a)pyrene	0.21	U
53-70-3	Dibenz(a,h)anthracene	0.21	U
191-24-2	Benzo(g,h,i)perylene	0.21	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.21	U

ANMS 6/27/02

PAH ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01116CSS01
 Lab Code: PEL Case No. SAS No: SDG No.: 2204044
 Matrix: SOIL Lab Sample ID: 220404402 Lab File ID: 44-2.D
 Sample wt/vol: 33.09 Units: G Date Received: 05/14/02
 Concentrated Extract Volume: 1 Date Extracted: 05/15/02
 Level:(low/med) LOW Date Analyzed: 05/23/02 Time: 2317
 PercentSolids: 90.9 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: Bottom Confirm. Method: 8310
 GPC Cleanup: (Y/N) N pH:
 Column(1): Vydac 201TP54 ID: 4.6 (mm)

CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
91-20-3	Naphthalene	6.7	U
208-96-8	Acenaphthylene	6.7	U
90-12-0	1-Methylnaphthalene	6.7	U
91-57-6	2-Methylnaphthalene	6.7	U
83-32-9	Acenaphthene	6.7	U
86-73-7	Fluorene	6.7	U
85-01-8	Phenanthrene	9.7	"
120-12-7	Anthracene	6.7	U
206-44-0	Fluoranthene	40.4	"
129-00-0	Pyrene	18.4	"
56-55-3	Benzo(a)anthracene	17.9	"
218-01-9	Chrysene	16.2	"
205-99-2	Benzo(b)fluoranthene	18.3	"
207-08-9	Benzo(k)fluoranthene	6.5	J
50-32-8	Benzo(a)pyrene	137	"
53-70-3	Dibenz(a,h)anthracene	6.7	U
191-24-2	Benzo(g,h,i)perylene	22.1	"
193-39-5	Indeno(1,2,3-cd)pyrene	15.1	"

*Good
Circle*

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C/MO 6/27/02

PAH ORGANIC ANALYSIS DATA SHEET

Lab Name: PEL Laboratories, Inc. Contract: Whiting Fld EPA Sample No. 01116CSS02
 Lab Code: PEL Case No. SAS No: SDG No.: 2204044
 Matrix: SOIL Lab Sample ID: 220404403 Lab File ID: 44-3.D
 Sample wt/vol: 33.09 Units: G Date Received: 05/14/02
 Concentrated Extract Volume: 1 Date Extracted: 05/15/02
 Level:(low/med) LOW Date Analyzed: 05/23/02 Time: 2351
 Percent Solids: 92.7 decanted: Dilution Factor: 1
 Extraction: SONC Station ID: Bottom Confirm. Method: 8310
 GPC Cleanup: (Y/N) N pH:
 Column(1): Vydac 201TP54 ID: 4.6 (mm)

CONCENTRATION UNITS: UG/KG

CAS NO.	ANALYTE	RESULT	Q
91-20-3	Naphthalene	6.6	U
208-96-8	Acenaphthylene	6.6	U
90-12-0	1-Methylnaphthalene	6.6	U
91-57-6	2-Methylnaphthalene	6.6	U
83-32-9	Acenaphthene	6.6	U
86-73-7	Fluorene	6.6	U
85-01-8	Phenanthrene	6.6	U
120-12-7	Anthracene	4	J
206-44-0	Fluoranthene	112	
129-00-0	Pyrene	86.1	
56-55-3	Benzo(a)anthracene	36.7	
218-01-9	Chrysene	43	
205-99-2	Benzo(b)fluoranthene	61.7	
207-08-9	Benzo(k)fluoranthene	27.3	
50-32-8	Benzo(a)pyrene	169	
53-70-3	Dibenz(a,h)anthracene	23.8	
191-24-2	Benzo(g,h,i)perylene	63.7	
193-39-5	Indeno(1,2,3-cd)pyrene	70.3	

*Qual
Code*

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CMU 6/27/02

TPH Analyses

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q1
Lab Sample ID: F11289-1
Matrix: AQ - Ground Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	OP17926.D	1	10/30/01	ME	10/29/01	OP4084	GOP681
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	105%		55-130%

(a) Sample not preserved, adjusted to pH < 2 prior to extraction.

Ames 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-22'-Q1
Lab Sample ID: F11289-2
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 86.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18050.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	9.1	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		66-130%

Omms 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q1
Lab Sample ID: F11289-3
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 94.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18051.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	11.2	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	82%		66-130%

CMW 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q1
Lab Sample ID: F11289-4
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 90.5

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18052.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	25.1	9.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	81%		66-130%

Onuo 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-30'-Q1
Lab Sample ID: F11289-5
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 90.4

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	OP18053.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	29.9	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		66-130%

Cmuo Cd/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q1
Lab Sample ID: F11289-6
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 93.5

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18054.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	9.1	mg/kg	u

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		66-130%

Ones 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-POSTEB-W-01-Q1
Lab Sample ID: F11289-7
Matrix: AQ - Ground Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	OP17927.D	1	10/30/01	ME	10/29/01	OP4084	GOP681
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		55-130%

(a) Sample not preserved, adjusted to pH < 2 prior to extraction.

CMD 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-PREEB-W-02-Q1
Lab Sample ID: F11298-2
Matrix: AQ - Field Blank Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: n/a

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	ZF03433.D	1	10/29/01	SKW	10/29/01	OP4075	GZF161

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		55-130%

CMW 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-72'-Q1
Lab Sample ID: F11298-3
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 92.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18055.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	15.8	8.8	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	86%		66-130%
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Oned 6/20/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q1
Lab Sample ID: F11298-4
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 92.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18057.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	11.7	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	92%		66-130%

CMW 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-18-Q1
Lab Sample ID: F11298-5
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 87.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18058.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	116	9.8	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	95%		66-130%
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omw 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-38-Q1
Lab Sample ID: F11298-6
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 90.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18059.D	1	11/03/01	SKW	11/02/01	OP4117	GOP684
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	16.0	9.4	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	88%		66-130%
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CMD 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-02-Q1
Lab Sample ID: F11298-7
Matrix: AQ - Field Blank Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF03434.D	1	10/29/01	SKW	10/29/01	OP4075	GZF161
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		55-130%

CMW 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-PREEB-W-03-Q1
Lab Sample ID: F11333-2
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18041.D	1	11/03/01	ME	11/01/01	OP4108	GOP683
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		55-130%

omw 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-5N-S-66'-Q1
Lab Sample ID: F11333-3
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: 89.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18136.D	1	11/06/01	SKW	11/05/01	OP4123	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	74.1	9.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		66-130%

Cmw 12/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-18-Q1
Lab Sample ID: F11333-4
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: 87.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18137.D	1	11/06/01	SKW	11/05/01	OP4123	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	10.5	9.5	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	87%		66-130%
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Amc 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-43-Q1
Lab Sample ID: F11333-5
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: 83.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18138.D	1	11/06/01	SKW	11/05/01	OP4123	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	28.6	9.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	83%		66-130%

Chris G/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-20S-S-18-Q1
Lab Sample ID: F11333-6
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 89.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18139.D	1	11/06/01	SKW	11/05/01	OP4123	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	12.4	9.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%		66-130%

CMUO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43-Q1
Lab Sample ID: F11333-7
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 93.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18140.D	1	11/06/01	SKW	11/05/01	OP4123	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	8.9	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		66-130%

Cms 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-20S-S-72-Q1
Lab Sample ID: F11333-8
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 91.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18160.D	1	11/07/01	SKW	11/05/01	OP4123	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	22.2	9.0	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	88%		66-130%
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CMW 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72-Q1
Lab Sample ID: F11333-9
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 90.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18142.D	1	11/07/01	SKW	11/05/01	OP4123	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	12.7	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	84%		66-130%

CMO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-POSTEB-W-03-Q1
Lab Sample ID: F11333-10
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP18088.D	1	11/05/01	SKW	11/02/01	OP4115	GOP685
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	✓

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	95%		55-130%

Cmw 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q2
Lab Sample ID: F12178-1
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19680.D	1	02/07/02	SKW	02/06/02	OP4610	GOP732
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	0.445	0.25	mg/l	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	91%		55-130%
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Ames 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	011-04-MP-10W-S-18'-Q2	Date Sampled:	01/30/02
Lab Sample ID:	F12178-2	Date Received:	01/31/02
Matrix:	SO - Soil	Percent Solids:	87.0
Method:	FLORIDA-PRO SW846 3550B		
Project:	NAS Whiting Field CTO-0011		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19599.D	1	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q	Qual Code
	TPH (C8-C40)	16.1	9.5	mg/kg	U	B

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	97%		66-130%

CMUO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q2
Lab Sample ID: F12178-3
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 91.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19601.D	1	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	10.3	9.0	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		66-130%

Amw 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q2
Lab Sample ID: F12178-4
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 88.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19602.D	1	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	14.9	9.6	mg/kg	U

*Anal
Code
B*

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		66-130%

CNO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-18'-Q2
Lab Sample ID: F12178-5
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 88.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19607.D	20	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	936	190	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		66-130%

CMD 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q2
Lab Sample ID: F12178-6
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 91.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19603.D	1	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	67.3	9.3	mg/kg	U

Qual
Circle
B

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	103%		66-130%

Chris G. 2/2/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-66'-Q2

Lab Sample ID: F12178-7

Matrix: SO - Soil

Method: FLORIDA-PRO SW846 3550B

Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02

Date Received: 01/31/02

Percent Solids: 92.2

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19604.D	1	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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TPH (C8-C40)

8.6

6.9

8.6

mg/kg

u

anal
code

B

CAS No. Surrogate Recoveries

Run# 1

Run# 2

Limits

84-15-1

o-Terphenyl

101%

66-130%

Cmnd 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q2

Lab Sample ID: F12178-8

Matrix: SO - Soil

Method: FLORIDA-PRO SW846 3550B

Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02

Date Received: 01/31/02

Percent Solids: 89.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19605.D	1	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q	<i>Qual Code</i>
	TPH (C8-C40)	40.9	8.7	mg/kg	U	B

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	100%		66-130%

CMMS 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q2
Lab Sample ID: F12178-9
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19606.D	1	02/01/02	SKW	02/01/02	OP4583	GOP728
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	23.8	9.3	mg/kg	U

qual
code
B

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	103%		66-130%

CMW 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q2
Lab Sample ID: F12178-10
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19681.D	1	02/07/02	SKW	02/06/02	OP4610	GOP732
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	101%		55-130%

Cmw 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-PREEB-W-02-Q2
Lab Sample ID: F12221-1
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19710.D	1	02/11/02	SKW	02/11/02	OP4625	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		55-130%

Onus 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-72'-Q2
Lab Sample ID: F12221-2
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 93.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19732.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	7.41	8.8	mg/kg	J

Qual Code

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		66-130%

Cmo 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q2
Lab Sample ID: F12221-3
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 94.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19733.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	8.53	8.6	mg/kg	J

Qual
Circle
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		66-130%

CME 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q2
Lab Sample ID: F12221-4
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 85.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19734.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	17.5	9.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		66-130%

CMUO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q2
Lab Sample ID: F12221-5
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 93.4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19741.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	14.3	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	90%		66-130%

CMES 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q2
Lab Sample ID: F12221-6
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 85.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19742.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	9.91	9.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		66-130%

CMW 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43'-Q2
Lab Sample ID: F12221-7
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 92.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19743.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	8.09	9.0	mg/kg	J

*Qual
Code*

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		66-130%

OMO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72'-Q2
Lab Sample ID: F12221-8
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 94.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19744.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	8.7	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	179% *		66-130%

(a) Suspected double surrogate; however, sample was BDL.

CRM 06/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-100'-Q2
Lab Sample ID: F12221-9
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 92.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19745.D	1	02/12/02	SKW	02/11/02	OP4628	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	9.0	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		66-130%

CMMO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-02-Q2
Lab Sample ID: F12221-10
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP19711.D	1	02/11/02	SKW	02/11/02	OP4625	GOP733
Run #2							

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	ND	0.28	mg/l	U
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	92%		55-130%
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Onms 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-PREEB-W-01-Q3
 Lab Sample ID: F13055-1
 Matrix: AQ - Field Blank Soil
 Method: FLORIDA-PRO SW846 3510C
 Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
 Date Received: 05/01/02
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20759.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		55-130%

Ames 6/28/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-22'-Q3
Lab Sample ID: F13055-2
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 89.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20779.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	11.9	8.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		66-130%

Checked 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0020

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q3
Lab Sample ID: F13055-3
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 94.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20780.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	9.1	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		66-130%

CMW 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0024

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q3
Lab Sample ID: F13055-4
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 93.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20781.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	81.8	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		66-130%

cmo 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0028

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q3
Lab Sample ID: F13055-5
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 87.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20782.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	25.4	9.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		66-130%

CMC 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3
Lab Sample ID: F13055-6
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 93.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20783.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	10.4	9.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		66-130%

cmw 6/28/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

0036

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q3
Lab Sample ID: F13055-7
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20760.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.25	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	98%		55-130%

cmd 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0040

Report of Analysis

Client Sample ID: 011-04-PREEB-W-02-Q3
Lab Sample ID: F13055-8
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20761.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.30	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		55-130%

omms 6/28/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3

Lab Sample ID: F13055-9

Matrix: SO - Soil

Method: FLORIDA-PRO SW846 3550B

Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02

Date Received: 05/01/02

Percent Solids: 93.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20784.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	9.41	8.7	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	97%		66-130%
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anne 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of compound

0046

Report of Analysis

Client Sample ID: 011-04-MP-FD1-S-100'-Q3
Lab Sample ID: F13055-10
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 91.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20785.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	21.5	8.9	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	91%		66-130%
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cnw 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0050

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-18'-Q3

Lab Sample ID: F13055-11

Date Sampled: 04/30/02

Matrix: SO - Soil

Date Received: 05/01/02

Method: FLORIDA-PRO SW846 3550B

Percent Solids: 87.6

Project: NAS Whiting Field CTO-0011

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20786.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	23.9	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		66-130%

Omnio 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0054

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q3
Lab Sample ID: F13055-12
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20804.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	19.5	8.9	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	100%		66-130%
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Cond 6/2/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0058

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-66'-Q3
Lab Sample ID: F13055-13
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20791.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	20.6	8.9	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	98%		66-130%
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Amu 6/25/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0062

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-18'-Q3
Lab Sample ID: F13055-14
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20792.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	14.6	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		66-130%

OMW 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0066

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q3
Lab Sample ID: F13055-15
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 94.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20793.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	7.67	9.0	mg/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		66-130%

amo 6/28/02

0070

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q3
Lab Sample ID: F13055-16
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 92.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20794.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	29.5	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		66-130%

omms 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0074

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-FD2-S-100'-Q3

Lab Sample ID: F13055-17

Date Sampled: 04/30/02

Matrix: SO - Soil

Date Received: 05/01/02

Method: FLORIDA-PRO SW846 3550B

Percent Solids: 89.3

Project: NAS Whiting Field CTO-0011

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20795.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	18.4	9.2	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	98%		66-130%
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Omn 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0078

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-PREEB-W-03-Q3
Lab Sample ID: F13066-1
Matrix: AQ - Field Blank Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20763.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		55-130%

OMO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q3
Lab Sample ID: F13066-2
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: 87.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20796.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	9.32	9.7	mg/kg	J

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		66-130%

Amo 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3

Lab Sample ID: F13066-3

Date Sampled: 05/01/02

Matrix: SO - Soil

Date Received: 05/02/02

Method: FLORIDA-PRO SW846 3550B

Percent Solids: 91.1

Project: NAS Whiting Field CTO-0011

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20797.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	9.3	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		66-130%

omco 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	011-04-MP-30E-S-72'-Q3	Date Sampled:	05/01/02
Lab Sample ID:	F13066-4	Date Received:	05/02/02
Matrix:	SO - Soil	Percent Solids:	93.2
Method:	FLORIDA-PRO SW846 3550B		
Project:	NAS Whiting Field CTO-0011		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20798.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	10.3	8.7	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	96%		66-130%
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Amw 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q3
Lab Sample ID: F13066-5
Matrix: AQ - Field Blank Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20768.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		55-130%

05/06/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Wet Chemistry Analyses

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-22'-Q1
Lab Sample ID: F11289-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 86.1

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	86.1		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

OND 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-43'-Q1
Lab Sample ID: F11289-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 94.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.7		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1000 U	1000	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CMW 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-18'-Q1
Lab Sample ID: F11289-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 90.5

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.5		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CMMS 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-30'-Q1

Lab Sample ID: F11289-5

Matrix: SO - Soil

Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01

Date Received: 10/23/01

Percent Solids: 90.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.4		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CMUO 6/28/02

analysis

Accutest Laboratories

Client Sample ID: 011-04-MP-30E-S-43'-Q1

Lab Sample ID: F11289-6

Matrix: SO - Soil

Project: NAS Whiting Field CTO-0011

Report of Analysis Sampled: 10/22/01

Date Received: 10/23/01

Percent Solids: 93.5

General Chemistry

Analyte	Result	RL	Units	DF	Analized By	Method
Solids, Percent	93.5		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1100 U	1100	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CML 6/28/02

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-72'-Q1
Lab Sample ID: F11298-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 92.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.2		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

CRUD 6/28/02

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-72'-Q1
Lab Sample ID: F11298-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 92.1

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.1		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

CMS 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-18-Q1
Lab Sample ID: F11298-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 87.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.2		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

emo 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10N-S-38-Q1
Lab Sample ID: F11298-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 90.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.2		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-5N-S-66'-Q1

Lab Sample ID: F11333-3

Date Sampled: 10/25/01

Matrix: SO - Soil

Date Received: 10/27/01

Percent Solids: 89.9

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.9		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMMO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18-Q1

Lab Sample ID: F11333-4

Matrix: SO - Soil

Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01

Date Received: 10/27/01

Percent Solids: 87.7

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.7			%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	<u>U</u>	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

Cms 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-43-Q1
Lab Sample ID: F11333-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: 83.8

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	83.8		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMS 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-20S-S-18-Q1
Lab Sample ID: F11333-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 89.3

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.3		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMW06/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43-Q1
Lab Sample ID: F11333-7
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 93.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.4		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72-Q1
Lab Sample ID: F11333-8
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 91.7

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.7			%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	u	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72-Q1
Lab Sample ID: F11333-9
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 90.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMC 6/5/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18'-Q2
Lab Sample ID: F12178-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 87.0

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	87			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q2

Lab Sample ID: F12178-3

Matrix: SO - Soil

Date Sampled: 01/30/02

Date Received: 01/31/02

Percent Solids: 91.1

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.1			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q2
Lab Sample ID: F12178-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 88.4

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	88.4			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMS 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-18'-Q2
Lab Sample ID: F12178-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 88.3

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	88.3			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	1560		1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMC 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q2
Lab Sample ID: F12178-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 91.9

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.9		%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-66'-Q2
Lab Sample ID: F12178-7
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 92.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.2		%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q2
Lab Sample ID: F12178-8
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 89.8

General Chemistry

Analyte	Result <u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.8		%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100 <u>U</u>	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q2
Lab Sample ID: F12178-9
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 89.0

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	89			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

cnms 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q2
Lab Sample ID: F12221-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 93.8

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.8		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

cmd 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q2
Lab Sample ID: F12221-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 94.4

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.4			%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

cnms 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q2
Lab Sample ID: F12221-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 85.3

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	85.3		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q2
Lab Sample ID: F12221-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 93.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.4		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

onmo 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q2
Lab Sample ID: F12221-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 85.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	85.7		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

CMMO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43'-Q2
Lab Sample ID: F12221-7
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 92.0

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	92			%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	-1	02/14/02 ANJ	CORP ENG 81M/SW9060M

cmd 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72'-Q2

Lab Sample ID: F12221-8

Matrix: SO - Soil

Date Sampled: 02/04/02

Date Received: 02/05/02

Percent Solids: 94.4

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.4		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-100'-Q2

Lab Sample ID: F12221-9

Matrix: SO - Soil

Date Sampled: 02/04/02

Date Received: 02/05/02

Percent Solids: 92.0

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

OWNO 02/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q3
Lab Sample ID: F13055-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 89.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.6		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q3
Lab Sample ID: F13055-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 94.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.4		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMND 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q3
Lab Sample ID: F13055-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 93.1

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.1		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

Umo 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q3
Lab Sample ID: F13055-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 87.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.6		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMC 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3
Lab Sample ID: F13055-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 93.9

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.9		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100 U	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
Lab Sample ID: F13055-9
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 93.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.7		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/20/02

Report of Analysis

Client Sample ID: 011-04-MP-FD1-S-100'-Q3

Lab Sample ID: F13055-10

Matrix: SO - Soil

Date Sampled: 04/30/02

Date Received: 05/01/02

Percent Solids: 91.3

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.3		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-18'-Q3
Lab Sample ID: F13055-11
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 87.6

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.6			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMO 6/5/02

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q3
Lab Sample ID: F13055-12
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.4		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

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Client Sample ID: 011-04-MP-05N-S-66'-Q3
Lab Sample ID: F13055-13
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.5

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.5		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CND 6/28/02

Report of Analysis

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Client Sample ID: 011-04-MP-10W-S-18'-Q3
Lab Sample ID: F13055-14
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 89.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CNO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q3
Lab Sample ID: F13055-15
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 94.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMMO 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-72'-Q3
Lab Sample ID: F13055-16
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 92.2

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.2			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMV 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-FD2-S-100'-Q3

Lab Sample ID: F13055-17

Matrix: SO - Soil

Date Sampled: 04/30/02

Date Received: 05/01/02

Percent Solids: 89.3

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.3		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CND 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q3

Lab Sample ID: F13066-2

Matrix: SO - Soil

Date Sampled: 05/01/02

Date Received: 05/02/02

Percent Solids: 87.8

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.8			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/13/02 ANJ	CORP ENG 81M/SW9060M

CNO 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-43'-Q3

Lab Sample ID: F13066-3

Matrix: SO - Soil

Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02

Date Received: 05/02/02

Percent Solids: 91.1

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.1			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/13/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/22/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
Lab Sample ID: F13066-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: 93.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.2		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/13/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Chain of Custody Forms

001-001-001
 001-001-001
 001-001-001

CHAIN-OF-CUSTODY RECORD

COC NUMBER:

151168-020501-01

PROJECT NUMBER:	LAB NAME/POD CONTACT:	13 FAX AND MAIL REPORTS/VEDO TO: RECIPIENT 1 (Name and Company)	14 RECIPIENT 1 (Address, Tel No., and Fax No.):
Field	151168	Account Lab, 1000 Redwood Rd, Suite C-55-Orlando, FL 32817	1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
4 CTO OR DO NUMBER:	LAB SO NUMBER:	15 FAX AND MAIL REPORTS/VEDO TO: RECIPIENT 2 (Name and Company)	15 RECIPIENT 2 (Address, Tel No., and Fax No.):
CTO-0043	NO-2379	Charles Messome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	15 FAX AND MAIL REPORTS/VEDO TO: RECIPIENT 3 (Name and Company)	15 RECIPIENT 3 (Address, Tel No., and Fax No.):
850-939-8300 ext 17	407-425-6700	Tatiana Romanov & Bonny Hogue, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[illegible]

TO COMPANY: (please print) Gen. CH2M HILL Constructors, Inc.		COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No. 828535499203		SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for labt use):	
DELIVERED BY		DATE	TIME	RECEIVED BY	
<i>Evelyn Tye</i> Signature:		05/01/2002	1800	<i>M. R. H. O A GHW P M</i> Printed Name and Signature:	
				DATE 5/2/02-	
				TIME 743	
<i>[Signature]</i> Signature:					
<i>[Signature]</i> Signature:					
<i>[Signature]</i> Signature:					
<i>[Signature]</i> Signature:					

CHAIN-OF-CUSTODY RECORD

* COC NUMBER:

151168-020430-02

NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:	RECIPIENT 1 (Address, Tel No., and Fax No.):
Billing Field	151168	Accutest Labs, 4405 Vineland Rd., Suite C-15, Orlando, FL 32571	RECIPIENT 1 (Name and Company): Amy Twitty, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
PHASE/SITE/TASK:	CTU OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:	RECIPIENT 2 (Address, Tel No., and Fax No.):
	GTO-0011	PO 2379	RECIPIENT 2 (Name and Company): Christelle Newsome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181
City:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:	RECIPIENT 3 (Address, Tel No., and Fax No.):
	850-539-8300 ext. 17	407-425-6700	RECIPIENT 3 (Name and Company): Tatiana Romanov & Bonny Hogue, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181

ANALYSES REQUIRED (Include Method Number)										LAB ID (for lab's use)
11 SAMPLE IDENTIFIER	12 SAMPLE DESCRIPTION/LOCATION	13 MATRIX (see codes on SOP)	14 DATE COLLECTED	15 TIME COLLECTED	16 DATA PKG LEVEL (see codes on SOP)	17 LAT (calendar days)	18 TRPH by J.L. PRO	19 PAR by J.L. PRO TCC(9000)	20 SAMPLE TYPE (see codes on SOP)	
11-04-MP-05N-S-18'-Q3	04-MP-05N @ 18 foot depth	S	04/30/02	10:40	C	14	3	1	N	3ea. Syringe, 1 ea. 8-oz.
11-04-MP-05N-S-18'-Q3 MS	04-MP-05N @ 18 foot depth - MS	S	04/30/02	10:40	C	14	3	1	MS	3ea. Syringe, 1 ea. 8-oz.
11-04-MP-05N-S-18'-Q3 MSD	04-MP-05N @ 18 foot depth - MSD	S	04/30/02	10:40	C	14	3	1	SD	3ea. Syringe, 1 ea. 8-oz.
11-04-MP-05N-S-38'-Q3	04-MP-05N @ 38 foot depth	S	04/30/02	11:20	C	14	3	1	N	3ea. Syringe, 1 ea. 8-oz.
11-04-MP-05N-S-66'-Q3	04-MP-05N @ 66 foot depth	S	04/30/02	12:20	C	14	3	1	N	3ea. Syringe, 1 ea. 8-oz.
011-04-MP-10W-S-18'-Q3	04-MP-10W @ 18 foot depth	S	04/30/02	14:20	C	14	3	2	N	3ea. Syringe, 1 ea. 8-oz.
011-04-MP-10W-S-43'-Q3	04-MP-10W @ 43 foot depth	S	04/30/02	14:50	C	14	3	2	N	3ea. Syringe, 1 ea. 8-oz.
011-04-MP-10W-S-72'-Q3	04-MP-10W @ 72 foot depth	S	04/30/02	15:50	C	14	3	2	N	3ea. Syringe, 1 ea. 8-oz.
011-04-MP-FD2-S-100'-Q3	04-MP-FD2 @ 100 foot depth	S	04/30/02	xxxxx	C	14	3	1	FD2	3ea. Syringe, 1 ea. 8-oz.
011-04-POSTER-W-01-Q3	Post Equipment Rhinostat Blank	W	04/30/02	17:35	C	14	3	1	EB	3ea. 40ml VOAs, 2 ea. 1-liter

RECEIVED BY:	DATE:	TIME:
CA + ELVEEN	04/30/2002	1800
Printed Name and Signature:	Printed Name and Signature:	Printed Name and Signature:
CA + ELVEEN	04/30/2002	1800
Printed Name and Signature:	Printed Name and Signature:	Printed Name and Signature:
CA + ELVEEN	04/30/2002	1800
Printed Name and Signature:	Printed Name and Signature:	Printed Name and Signature:

CHAIN-OF-CUSTODY RECORD 1-15052

151168-020430-01

NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	11 FAX AND MAIL REPORTS/IED TO: RECIPIENT 1 (Name and Company)	11 RECIPIENT 1 (Address, Tel No. , and Fax No.):
Building Field	151168	Accutest Lab, 4405 Vlneland Rd., Suite C-15, Orlando, FL 32571	Amy Twitty, CH2M Hill, Inc.	1766 Ses Lark Lane, Newarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
PHASE/SITE/TAJAC:	CTO OR DO NUMBER:	LAB PO NUMBER:	13 FAX AND MAIL REPORTS/IED TO: RECIPIENT 2 (Name and Company)	13 RECIPIENT 2 (Address, Tel No. , and Fax No.):
	CTO-0011	PO 2379	Christella Newsome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181
	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	15 FAX AND MAIL REPORTS/IED TO: RECIPIENT 3 (Name and Company)	15 RECIPIENT 3 (Address, Tel No. , and Fax No.):
ifty	850-939-8300 ext. 17	407-425-6700	Tatiana Romanov & Bonny Hogue, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181

18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	25 ANALYSES REQUIRED (Include Method Numbers)						26 SAMPLE TYPE (see notes on SOP)	27 COMMENTS/ SCREENING READINGS	28 LAB ID (for lab use)
							BTEX by SWSRMBL	PAHs by EIS10	TRPH by FL-PRO	PALM-GIOL, TRPHTL-PRO, TOTC-PPEB					
011-04-FREEB-W-01-Q3	Pre Equipment Rinseate Blank	W	04/29/02	12:00	C	14	3	1	1				EB	3 ea. 40ml VOAs, 2 ea. 1-liter	
011-04-BKGD-S-22'-Q3	Background Location @ 22' foot depth	S	04/29/02	12:30	C	14	3			1			N	3 ea. Syringes, 1 ea. 8-oz.	
011-04-BKGD-S-43'-Q3	Background Location @ 43' foot depth	S	04/29/02	13:20	C	14	3			1			N	3 ea. Syringes, 1 ea. 8-oz.	
011-04-BKGD-S-72'-Q3	Background Location @ 72' foot depth	S	04/29/02	16:25	C	14	3			1			N	3 ea. Syringes, 1 ea. 8-oz.	
011-04-MP-30E-S-18'-Q3	04-MP-30E @ 18 foot depth	S	04/29/02	17:05	C	14	3			1			N	3 ea. Syringe, 1 ea. 8-oz.	
011-04-MP-30E-S-43'-Q3	04-MP-30E @ 43 foot depth	S	04/29/02	17:50	C	14	3			1			N	3 ea. Syringes, 1 ea. 8-oz.	
011-04-POSTER-W-01-Q3	Post Equipment Rinseate Blank	W	04/29/02	17:35	C	14	3	1	1				EB	3 ea. 40ml VOAs, 2 ea. 1-liter	
011-04-FREEB-W-02-Q3	Pre Equipment Rinseate Blank	W	04/30/02	9:00	C	14	3	1	1				EB	3 ea. 40ml VOAs, 2 ea. 1-liter	
011-04-MP-30E-S-72'-Q3	04-MP-30E @ 72 foot depth	S	04/30/02	9:45	C	14	3			1			N	3 ea. Syringes, 1 ea. 8-oz.	
011-04-MP-FD1-S-100'-Q3	04-MP-FD1 @ 100 foot depth	S	04/30/02	XXXX	C	14	3			1			FD	3 ea. Syringes, 1 ea. 8-oz.	

FROM AND COMPANY: (please print) McGraw-Hill Construction, Inc.		COURIER AND SHIPPING NUMBER: 828535494214		Fed-Ex Airbill No.	
RECEIVED BY <i>[Signature]</i>		DATE 04/30/2002		TIME 1800	
PRINTED NAME AND SIGNATURE: [Blank]		DATE 05/01/02		TIME 0000	
RECEIVED BY <i>[Signature]</i>		DATE [Blank]		TIME [Blank]	
PRINTED NAME AND SIGNATURE: [Blank]		DATE [Blank]		TIME [Blank]	
RECEIVED BY <i>[Signature]</i>		DATE [Blank]		TIME [Blank]	
PRINTED NAME AND SIGNATURE: [Blank]		DATE [Blank]		TIME [Blank]	

CHAIN-OF-CUSTODY RECORD

151168-020430-03

[illegible]

CHAIN-OF-CUSTODY RECORD

151168-011023-01

NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No., and Fax No.):
iting Field	151168	Accutest Laboratory, 4405 Vineland RD, C-15, Orlando, FL 32811	Amy Twitty, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No., and Fax No.):
	CTO-0011	PO 2379	Christelle Newsome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone-770-604-9182 Fax-770-604-9181
CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No., and Fax No.):
lity	850-939-8300 ext. 17	407-425-6700	Lisa Schwan, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone-770-604-9182 Fax-770-604-9181

2 ANALYSES REQUIRED (Include Method Numbers)										24 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/ SCREENING READINGS	28 LAB ID (for lab's use)
19 SAMPLE IDENTIFIER	20 SAMPLE DESCRIPTION/LOCATION	23 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	BTEX by 5035/8021B	PAHs by 8310	TRPH by FL-PRO.			
11-04-TRIPB-W-02-Q1	Trip Blank	W	10/23/01	9:05	C	14	3	1	1	1	2ea. 40ml VOAs	
1-04-PREEB-W-02-Q1	Pre Equipment Rinseate Blank	W	10/23/01	9:00	C	14	2	1	1		2ea. 40ml VOAs, 2 ea. 1-liter	
1-04-MP-30E-S-72-Q1	04-MP-30E @ 72 foot depth	S	10/23/01	10:45	C	14	3			2	3ea. Encore & 2 ea. 8-oz.	
11-04-BKGD-S-72-Q1	Background @ 72 foot depth	S	10/23/01	15:30	C	14	3			2	3ea. Encore & 2 ea. 8-oz.	
11-04-MP-10N-S-18-Q1	04-MP-10N @18 foot depth	S	10/23/01	16:25	C	14	3			2	3ea. Encore & 2 ea. 8-oz.	
11-04-MP-10N-S-38-Q1	04-MP-10N @38 foot depth	S	10/23/01	16:55	C	14	3			2	3ea. Encore & 2 ea. 8-oz.	
1-04-MP-10N-S-38-Q1-MS	04-MP-10N @38 foot depth	S	10/23/01	16:55	C	14	3			2	3ea. Encore & 2 ea. 8-oz.	
1-04-MP-10N-S-38-Q1-MSD	04-MP-10N @38 foot depth	S	10/23/01	16:55	C	14	3			2	3ea. Encore & 2 ea. 8-oz.	
11-04-POSTEB-W-02-Q1	Post Equipment Rinseate Blank	W	10/23/01	17:25	C	14	2	1	1		2ea. 40ml VOAs, 2 ea. 1-liter,,	

25 COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No.83074796114	26 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
--	--

27 RELINQUISHED BY Name and Signature: Damber	DATE 10-23-01	TIME 1:30	28 RECEIVED BY Printed Name and Signature: Fed-Ex	DATE 10-24-01	TIME 10:00
Name and Signature: H. WANDERLEY			Printed Name and Signature: H. WANDERLEY		

115 Perimeter Center Place, Suite 700
Atlanta, GA 30348-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

' COC NUMBER:

151168-011025-02

CONSTRUCTORS, INC.		Fax No: (770) 604-9282	
1	2	3	4
PROJECT NUMBER:	LAB NAME AND CONTACT:	11 FAX AND MAIL CD OF COC, Receipt Report, Preliminary data, & EDD TO:	14 RECIPIENT 1 (Address, Tel No., and Fax No.):
151168	Accutest Laboratory, 4405 Vineland RD, C-15, Orlando, FL 32811		1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
CTO OR DO NUMBER:	LAB PO NUMBER:	12 FAX AND MAIL Preliminary Report TO: RECIPIENT 2 (Name and Company)	15 RECIPIENT 2 (Address, Tel No., and Fax No.):
CTO-0011	PO 2379	Christelle Newsome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9282
PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	13 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	16 RECIPIENT 3 (Address, Tel No., and Fax No.):
850-939-8300 ext. 17	407-425-6700	Tatiana Romanov, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9282

[illegible]

30 COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No.		31 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
32 RELINQUISHED BY	DATE	33 RECEIVED BY	DATE
and Signature:	TIME	Printed Name and Signature:	TIME
<i>Don Bitely Ryan</i>	10/26/01 1600	FEDEx	
and Signature:		Printed Name and Signature:	
		<i>Debra Adams</i>	10/27/01 10:00
and Signature:		Printed Name and Signature:	

CHAIN-OF-CUSTODY RECORD

115 Perimeter Center Place, Suite 700
Atlanta, GA 30345-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

' COC NUMBER:

151168-011025-01

1. PROJECT NUMBER:		2. LAB NAME AND CONTACT:		3. FAX AND MAIL CD OF COC, Receipt Report, Preliminary data, & EDD TO:		4. RECIPIENT 1 (Address, Tel No., and Fax No.):							
5. PROJECT NUMBER:		6. CTO OR DO NUMBER:		7. LAB PO NUMBER:		8. RECIPIENT 2 (Address, Tel No., and Fax No.):							
9. CTO OR DO NUMBER:		10. LAB TEL NO AND FAX NO:		11. RECIPIENT 3 (Address, Tel No., and Fax No.):		12. RECIPIENT 4 (Address, Tel No., and Fax No.):							
Field	151168	Accutest Laboratory, 4405 Vineland RD, C-15, Orlando, FL 32811	PO 2379	850-939-8300 ext. 17	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9282	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9282	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9282						
E/SITE/TASK:	CTO-0011												
ACT:													
13. ANALYSES REQUIRED (Include Method Numbers)													
14. SAMPLE IDENTIFIER	15. SAMPLE DESCRIPTION/LOCATION	16. MATRIX (see codes on SOP)	17. DATE COLLECTED	18. TIME COLLECTED	19. DATA PKG LEVEL (see codes on SOP)	20. TAT (calendar days)	21. BTEX by 5035/8021B	22. PAHs by 8310	23. TRPH by FL-PRO, & TOC by 9060	24. PAHs by 8310, TRPH by FL-PRO, & TOC by 9060	25. SAMPLE TYPE (see codes on SOP)	26. COMMENTS/ SCREENING READINGS	27. LAB ID (for lab's use)
1-TRIPB-W-03-Q1	Trip Blank	W	10/25/01	14:25	C	14	2				QC	2ea. 40ml VOAs	
1-PREB-W-03-Q1	Pre Equipment Rinsate Blank	W	10/25/01	14:40	C	14	3	2	1		QC	3ea. 40ml VOAs, 3 ea. 1-liter	
4-MP-SN-S-66-Q1	04-MP-SN @ 66 foot depth	S	10/25/01	17:20	C	14	3			2	N	3ea. Encore & 2 ea. 8-oz.	
1-MP-10W-S-18-Q1	04-MP-10W @18 foot depth	S	10/25/01	17:50	C	14	3			2	N	3ea. Encore & 2 ea. 8-oz.	
1-MP-10W-S-43-Q1	04-MP-10W @43 foot depth	S	10/25/01	18:30	C	14	3			2	N	3ea. Encore & 2 ea. 8-oz.	
14. COMPANY: (please print)		15. COURIER AND SHIPPING NUMBER:		16. RELINQUISHED BY		17. RECEIVED BY		18. SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):					
r, CH2M Hill Constructors, Inc.		Fed-Ex Airbill No.											
Signature:		Signature:		Signature:		Signature:		Signature:					
10-26-01		10-26-01		10-26-01		10-26-01		10-26-01					
10:00		10:00		10:00		10:00		10:00					
10/26/01		10/26/01		10/26/01		10/26/01		10/26/01					
1500		1500		1500		1500		1500					

CHAIN-OF-CUSTODY RECORD

COC NUMBER:

151168-020130-01

PROJECT NAME: 151168	PROJECT NUMBER: 4405 Vineland Rd	LAB NAME AND CONTACT: Accutest Laboratory, 3335 Peachtree 130, Atlanta, GA 30346-1100 Tel No: (770) 604-9182 Fax No: (770) 604-9282	FAX AND MAIL REPORTS/EDD TO: Amy Twitty, CH2M Hill, Inc. (fax) 850-939-0035	FAX AND MAIL REPORTS/EDD TO: Christelle Newsome, CH2M Hill, Constructors, Inc.	FAX AND MAIL REPORTS/EDD TO: Tatiana Romanova & Bonnie Hogue, CH2M Hill Constructors Inc.	FAX AND MAIL REPORTS/EDD TO: 115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181	FAX AND MAIL REPORTS/EDD TO: 115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
CTO OR DO NUMBER: CTO-0011	CTO OR DO NUMBER: CTO-0011	LAB TEL NO AND FAX NO: 850-939-8300 ext. 17	LAB TEL NO AND FAX NO: 850-939-8300 ext. 17	LAB TEL NO AND FAX NO: 850-939-8300 ext. 17	LAB TEL NO AND FAX NO: 850-939-8300 ext. 17	LAB TEL NO AND FAX NO: 850-939-8300 ext. 17	LAB TEL NO AND FAX NO: 850-939-8300 ext. 17

11 SAMPLE IDENTIFIER	12 SAMPLE DESCRIPTION/LOCATION	13 MATRIX (see codes on SOP)	14 DATE COLLECTED	15 TIME COLLECTED	16 DATA PKG LEVEL (see codes on SOP)	17 TAT (calendar days)	18 ANALYSES REQUIRED (Include Method Numbers)						19 SAMPLE TYPE (see codes on SOP)	20 COMMENTS/ SCREENING READINGS	21 LAB ID (for lab's use)	
							BTEX by 5035/8021B	PAHs by 8310	TRPH by FL-PRO	TOC by 9060						
011-04-PREB-W-01-Q2	Pre Equipment Rinsate Blank	W	01/30/02	1030	C	14	3	2	2					QC	3ea. 40ml VOAs, 2 ea. 1-liter	
011-04-MP-10W-S-18'-Q2	04-MP-10W @ 18 foot depth	S	01/30/02	1115	C	14	3	1	1	1				N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-10W-S-43'-Q2	04-MP-10W @ 43 foot depth	S	01/30/02	1140	C	14	3	1	1	1				N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-10W-S-72'-Q2	04-MP-10W @ 72 foot depth	S	01/30/02	1400	C	14	3	1	1	1				N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-18'-Q2	04-MP-05N @ 18 foot depth	S	01/30/02	1500	C	14	3	1	1	1				N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-38'-Q2	04-MP-05N @ 38 foot depth	S	01/30/02	1600	C	14	3	1	1	1				N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-66'-Q2	04-MP-05N @ 66 foot depth	S	01/30/02	1635	C	14	3	1	1	1				N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-18'-Q2 MS	04-MP-05N @ 18 foot depth	S	01/30/02	1500	C	14	3	1	1	1				MS	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-18'-Q2 SD	04-MP-05N @ 18 foot depth	S	01/30/02	1500	C	14	3	1	1	1				SD	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-30E-S-18'-Q2	04-MP-30E @ 18 foot depth	S	01/30/02	1710	C	14	3	1	1	1				N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	

19 RELINQUISHED BY Name and Signature: <i>Scott Dunbar</i>		20 RECEIVED BY Printed Name and Signature: <i>Fred-Ex</i>		DATE 1-30-02	TIME 1450
21 LEIKS) AND COMPANY: (please print) Dunbar, CH2M Hill Constructors, Inc.		22 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):			
Name and Signature: <i>Scott Dunbar</i>		Printed Name and Signature: <i>Scott Dunbar</i>		DATE 1-31-02	TIME 10:00
Name and Signature:		Printed Name and Signature:			

CHAIN-OF-CUSTODY RECORD

[illegible]

CHAIN-OF-CUSTODY RECORD

151168-020205-01

PROJECT NUMBER: 151168		LAB NAME AND CONTACT: Accutest Laboratory, 4405 Vine-land Rd., C-15, Orlando, FL 32811		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company) Amy Twitty, CH2M Hill, Inc.		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Address, Tel No., and Fax No.): 1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035	
CTO OR DO NUMBER: CTO-0011		LAB PO NUMBER: PO 2379		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company) Christelle Newsome, CH2M Hill, Constructors, Inc.		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Address, Tel No., and Fax No.): 115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346, Phone=770-604-9182 Fax=770-604-9181	
PROJECT TEL NO AND FAX NO: 850-939-8300 ext. 17		LAB TEL NO AND FAX NO: 407-425-6700		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company) Tatiana Romanova & Bonnie Hogue, CH2M Hill Constructors Inc.		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Address, Tel No., and Fax No.): 115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346, Phone=770-604-9182 Fax=770-604-9181	

18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	25 ANALYSES REQUIRED (Include Method Numbers)				26 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/SCREENING READINGS	28 LAB ID (for lab's use)
							BTEX by 5035/8021B	PAHs by 8310	TRPH by FL-PRO	TOC by 9060			
011-04-PREEB-W-02-Q2	Pre Equipment Rinsate Blank	W	02/05/02	0900	C	14	3	2	2		QC	3ea. 40ml VOAs, 2 ea. 1-liter	
011-04-MP-30E-S-72-Q2	04-MP-30E @ 72 foot depth	S	02/05/02	0905	C	14	3	1	1	1	N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-BKGD-S-22-Q2	Background Location @ 22 foot depth	S	02/05/02	1255	C	14	3	1	1	1	N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-BKGD-S-43-Q2	Background Location @ 43 foot depth	S	02/05/02	1345	C	14	3	1	1	1	N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-BKGD-S-72-Q2	Background Location @ 72 foot depth	S	02/05/02	1435	C	14	3	1	1	1	N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-18-Q2	04-MP-20S @ 18 foot depth	S	02/05/02	0950	C	14	3	1	1	1	N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-43-Q2	04-MP-20S @ 43 foot depth	S	02/05/02	1025	C	14	3	1	1	1	N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-72-Q2	04-MP-20S @ 72 foot depth	S	02/05/02	1115	C	14	3	1	1	1	N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-100-Q2	04-MP-20S @ 100 foot depth	S	02/05/02	—	C	14	3	1	1	1	FD	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-POSTEB-W-02-Q2	Post Equipment Rinsate Blank	W	02/05/02	1415	C	14	3	2	2		QC	3ea. 40ml VOAs, 2 ea. 1-liter	

COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No. 830374779887		SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
830374779887		830374779887	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
Time and Signature:		Printed Name and Signature:	TIME
Time and Signature:		Printed Name and Signature:	1000
Time and Signature:		Printed Name and Signature:	
Time and Signature:		Printed Name and Signature:	

CHAIN-OF-CUSTODY RECORD

' COC NUMBER:

151168-020205-02

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company)	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	14 RECIPIENT 1 (Address, Tel No., and Fax No.):
Whiting Field	151168	Accutest Laboratory, 4405 Vine-land Rd., C-15, Orlando, FL 32811	Amy Twitty, CH2M Hill, Inc.			1766 Sea Lark Lane, Navarre, FL. 32566 (phone) 850-939-8300, (fax) 850-939-0035
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:				15 RECIPIENT 2 (Address, Tel No., and Fax No.):
	CTO-0011	PO 2379	Christelle Newsome, CH2M Hill, Constructors, Inc.			115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346- Phone=770-604-9182 Fax=770.604.9181
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:				16 RECIPIENT 3 (Address, Tel No., and Fax No.):
Twitty	850-939-8300 ext. 17	407-425-6700	Tatiana Romanova & Bonnie Hogue, Hill Constructors Inc.			115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346- Phone=770-604-9182 Fax=770.604.9181

[illegible]

1. CARRIER AND COMPANY: (please print) Dunbar, CH2M Hill Constructors, Inc.		2. COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No. 830374779887		3. SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
4. RELINQUISHED BY		5. RECEIVED BY		6. TIME	
Name and Signature:		Printed Name and Signature:		DATE	
Name and Signature:		Printed Name and Signature:		DATE	
Name and Signature:		Printed Name and Signature:		DATE	



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0701

ACCUTEST JOB #:

ACCUTEST QUOTE #:[illegible]



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15

ORLANDO, FL 32811

TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

10-51-01 300 1434124

CLIENT INFORMATION				FACILITY INFORMATION				ANALYTICAL INFORMATION				MATRIX CODES			
ALSE ME DRESS Y. STATE ZIP D REPORT TO: ONE #				F11298 PROJECT NAME LOCATION PROJECT NO. FAX #				DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE CL - CL LIQ - OTHER LIQUID SOL - OTHER SOLID				LAB USE ONLY 10			
CUTEST		FIELD ID / POINT OF COLLECTION		COLLECTION		PRESERVATION									
AMPLE #		DATE	TIME	SAMPLED BY:	MATRIX	BOTTLES	INCH								
	F11298-3	10-23	10:45	CH	SD	1	✓								
	-4	10-23	15:30	CH	SD	1	✓								
	-5	10-23	10:25	CH	SD	1	✓								
	-6	10-23	11:55	CH	SD	1/3	✓								
TRS 10/25/19															
DATA TURNOURD INFORMATION				DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS							
STANDARD 48 HOUR RUSH 24 HOUR EMERGENCY OTHER 14 DAY AGENCY OR RUSH IS FAX DATA ESS PREVIOUSLY APPROVED				STANDARD <input type="checkbox"/> COMMERCIAL "B" <input type="checkbox"/> DISK DELIVERABLE <input type="checkbox"/> STATE FORMS <input checked="" type="checkbox"/> OTHER (SPECIFY) FULL				ALNJ - 441							
DATE TIME: 10/24/19 RECEIVED BY: [Signature] DATE TIME: 10/24/19 RECEIVED BY: [Signature]				DATE TIME: 10/24/19 RECEIVED BY: [Signature] DATE TIME: 10/24/19 RECEIVED BY: [Signature]				DATE TIME: 10/24/19 RECEIVED BY: [Signature] DATE TIME: 10/24/19 RECEIVED BY: [Signature]							



CHAIN OF CUSTODY

**4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0701**

ACCUTEST JOB #:

ACCUTEST QUOTE #:[illegible]

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0701

ACCUTEST JOB #:**ACCURTEST QUOTE #:**

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES		
PROJECT NAME F-2178			LOCATION						DW - DRINKING WATER		
STATE			PROJECT NO.						GW - GROUND WATER		
ZIP			FAX #						WW - WASTE WATER		
									SO - SOIL		
									SL - SLUDGE		
									OI - OIL		
									LO - OTHER LIQUID		
									RO - OTHER SOLID		
									LAB USE ONLY		
FIELD ID / POINT OF COLLECTION						PRESERVATION					
DATE		TIME		SAMPLED BY:		MATRIX		# OF BOTTLES		HCl	
1-30-92		11:15		SD		SD		1		✓	
-		11:40		SD		SD		1		✓	
-4		14:00		SD		SD		1		✓	
-5		15:00		SD		SD		1		✓	
-6		16:00		SD		SD		1		✓	
-7		16:35		SD		SD		1		✓	
-8		17:10		SD		SD		1		✓	
-9		17:40		SD		SD		1		✓	
TA TURNAROUND INFORMATION						DATA DELIVERABLE INFORMATION					
APPROVED BY:						COMMENTS/REMARKS					
RUSH						ALNT-4					
EMERGENCY											
LOCALITY											
RUSH IS FAX DATA											
USUALLY APPROVED											
STANDARD											
COMMERCIAL "B"											
DISK DELIVERABLE											
STATE FORMS											
OTHER (SPECIFY) FULT											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY											
DATE TIME:		RECEIVED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RECEIVED BY:	
1-31-92 10:00		1		2/2 10:05		2		2/2 10:05		2	
DATE TIME:		RECEIVED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RECEIVED BY:	
3.		4.		4.		4.		4.		4.	
DATE TIME:		RECEIVED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RECEIVED BY:	
5.		5.		5.		5.		5.		5.	
ON ICE						TEMPERATURE					
C						4.9					



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15

ORLANDO, FL 32811

TEL: 407-425-6700 • FAX: 407-425-0707

[illegible]



CHAIN OF CUSTODY

TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST QUOTE #:C 10

4



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

TEL: 407-425-8700 • FAX: 407-425-0707

ACCUTEST JOB #:**ACCUTEST QUOTE #:**[illegible]



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-8700 • FAX: 407-425-0703

ACCUTEST JOB #:**ACCUTEST QUOTE #:**[illegible]

521

Appendix B
Data Validation Checklists

SDG F11289
Volatiles Analysis by GC/MS

**QUALITY ASSURANCE REVIEW
DATA VALIDATION CHECKLIST
Volatile Organic Analytes by GC/MS**

Project File(s)	F11289, F11298, F11333	Sampling Date(s)	10/22/02, 10/23/02, 10/26/01
Laboratory	Accutest – Orlando FL	Receipt Date(s)	Next Day
SDG Number	F11289	Matrix	<input type="checkbox"/> Water <input type="checkbox"/> Air <input checked="" type="checkbox"/> Soil/Sediment with aqueous field QC samples

Sample Identification Numbers:

F11289-01 ^{EB}	F11289-06	F11298-03	F11333-01 ^{TB}	F11333-06	
F11289-02	F11289-07 ^{EB}	F11298-04	F11333-02 ^{EB}	F11333-07	
F11289-03	F11289-08 ^{TB}	F11298-05	F11333-03	F11333-08	
F11289-04 ^{FD}	F11298-01 ^{TB}	F11298-06	F11333-04	F11333-09	
F11289-05	F11298-02 ^{EB}	F11298-07 ^{EB}	F11333-05	F11333-10 ^{EB}	

The general criteria used to determine the data performance and quality assurance were based on:

- ☐ Hazardous Waste Remedial Actions Program (HAZWRAP) Requirements for Quality Control of Analytical Data (HAZWRAP DOE/HWP-65/R2)
- ☐ USEPA Contract Laboratory Program (CLP) National Laboratory Functional Guidelines for Organic Data Review (EPA-540/R-94/012, February 1993)
- ☒ USEPA SW846 (SW-846) Methods (8260)
- ☐ USEPA Drinking Water (DW) Methods (524.2, 624, 1624)
- ☐ Air Force Center for Environmental Excellence (AFCEE) QAPP Version 3.0
- ☒ Other:

Laboratory established accuracy and precision control limits.

The following parameters were examined: holding time and sample preservation, surrogate spike results, matrix spike / matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, method blank results, field, trip, and/or rinsate blank results, field duplicate results, instrument tuning and performance, initial and continuing calibrations, internal standard performance, and quantitation limits.

Reviewed by: Chris Orland

Date: 6/25/02

QA Concurrence by: _____

Date: _____

Validation Summary

The MS/MSD recoveries for ethylbenzene and xylene were below the lower control limit. The presence of these parameters in the primary sample may have interfered with the analyses. The results of the primary sample have been qualified as estimated and flagged "J" for ethylbenzene and xylene.

This image shows a single page of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

U - Not detected.
R - Unusable.

E*Data, Inc.
Volatile Validation Checklist
June 2002

I. HOLDING TIME AND SAMPLE PRESERVATION

Yes

No

☒
☒

☐
☐

All samples were handled and preserved according to requirements.

All samples were extracted and analyzed within holding time criteria.

The following deficiencies were found:

Sample ID	Matrix	Preservation	Collection Date	Extraction Date	Analysis Date	Qualifier Flag

Remarks:

II. SURROGATE SPIKE RECOVERIES

Yes



No



No deficiencies were found.



At least one of the deficient recoveries was outside control limits due to dilutions.

Sample ID	Surrogate 1	Surrogate 2	Surrogate 3	Surrogate 4

Surrogate	Name	QC Limits	
		Water	Soil
SMC1 (DFM)	Dibromofluoromethane	80 – 120	75 – 125
SMC2 (TOL)	Toluene-d8	80 – 120	75 – 125
SMC3 (BFB)	p-Bromofluorobenzene	80 – 120	72 – 137
SMC4 (DCB)	1,2-dichlorobenzene-d4	80 – 120	68 – 125

Remarks:

III. MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS

Yes



No



Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis was requested for this SDG.



MS/MSD analysis was performed on sample **F11298-06** found in SDG# **F11298** and sample **F11333-07** found in SDG# **F11333**.



All recoveries and relative percent differences (RPDs) were within control limits.

The following deficiencies were found:

Matrix	Analyte	MS Recovery	MSD Recovery	MS/MSD QC Limits	RPD	RPD Limit

MS/MSD Summary: Unacceptable recoveries per the total number of matrix spike recoveries in the fraction.
See Form III in data package.

Sample ID	F11298-06			
SDG	F11298		Matrix	Soil
RPD	0	out of	4	outside limits
Spike Rec.	0	out of	8	outside limits

Sample ID	F11333-07			
SDG	F11333		Matrix	Soil
RPD	0	out of	4	Outside limits
Spike Rec.	0	out of	8	outside limits

Remarks:

Note: No action will be taken based on MS/MSD data alone. Sample results may be affected by either a positive or negative bias due to deficient recoveries.

IV. LABORATORY CONTROL SAMPLE

Yes

No



At least one LCS analysis was performed per batch of samples.



LCS recoveries were within criteria.

The following compounds fell outside the specified QC limits:

LCS ID	Matrix	Compound	%R	Control Limits	Qualifier Flags

LCS Summary: Unacceptable recoveries for each LCS analysis in the SDG.

LCS ID	VB293-BS	Matrix:	Water	LCS ID	VG479-BS	Matrix:	Soil
Spike Recovery	0	Out of	4	Spike Recovery	0	Out of	4
			Outside Limits				Outside Limits

LCS ID	VH443-BS	Matrix:	Soil	LCS ID	VB294-BS	Matrix:	Water
Spike Recovery	0	Out of	4	Spike Recovery	0	Out of	4
			Outside Limits				Outside Limits

LCS ID	VG482-BS	Matrix:	Soil	LCS ID	VG483-BS	Matrix:	Soil
Spike Recovery	0	Out of	3	Spike Recovery	0	Out of	4
			Outside Limits				Outside Limits

LCS ID	VC304-BS	Matrix:	Water	LCS ID	VK246-BS	Matrix:	Soil
Spike Recovery	0	Out of	4	Spike Recovery	0	Out of	4
			Outside Limits				Outside Limits

Remarks:

V. BLANK ANALYSIS RESULTS

A. Laboratory Blanks (Deficiencies for method blanks, instrument blanks, etc.):

[illegible]

Remarks:

All method blanks were absent target parameters at concentrations greater than the report limits.

B. Field QC (Blanks):

Yes



No



Field QC samples were associated with this SDG.

Field QC associated with this SDG were:

Trip Blanks		Equipment Rinsate Blanks			
F11289-08 ^{TB}		F11289-01 ^{EB}	F11333-02 ^{EB}		
F11298-01 ^{TB}		F11289-07 ^{EB}	F11333-10 ^{EB}		
F11333-01 ^{TB}		F11298-02 ^{EB}			
		F11298-07 ^{EB}			

The following contaminants were detected in the field QC:

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples

Remarks:

All trip blank and field equipment rinsate blank analyses were absent target parameters at concentration greater than the report limits.

VI. FIELD PRECISION RESULTS

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Field duplicate data were included in this data package. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Qualification of field duplicate data was attempted. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Relative percent differences (RPDs) between duplicate sample results was less than 25% for liquid (30% for solid samples) when both sample values were $\geq 5 \times$ the RL. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | When one or both results were $< 5 \times$ the RL, RPDs between duplicate sample results were less than $1 \times$ RL for water samples ($2 \times$ RL for soil samples). |

Note: In the absence of project specified criteria the following guidelines are recommended:

- ☐ ~~For sample results $> 5 \times$ the RL, the RPD between field duplicate samples was $< 40\%$ for water samples (70% for soil samples).~~
- ☐ ~~For sample results $< 5 \times$ the RL, the RPD between field duplicate samples was less than the RL for water samples (less than $2 \times$ the RL for soil samples).~~

Field Sample/Duplicate ID: F11289-04/-05 Matrix: Soil

The relative percent difference (RPD) is calculated for each positive result identified in either the sample or field duplicate.

RPD is calculated using the following equation:

$$\text{RPD} = \frac{|A-B|}{(A+B)/2} \times 100$$

A = Sample Result

B = Duplicate Sample Result

Field Precision Evaluation Deficiency Worksheet:

Analyte	RL	5 x RL	Sample Result	Duplicate Result	RPD	Action
Benzene	2300	11500	ND	ND	NC	None
Toluene	2300	11500	ND	118	NC	None
Ethylbenzene	2300	11500	38400	15900	83%	J detects
Xylene	6900	34500	91000	38800	80%	J detects

Remarks:

NC is not calculated due to concentration levels less than 5 times the RL.

VII. GC/MS TUNING - INSTRUMENT PERFORMANCE

Yes



No



All tunes were compliant.

The bromofluorobenzene (BFB) standard performance results were reviewed and the following abundances were found to fall outside the specified criteria:

m/z	Required Abundance	Actual Abundance

Remarks:

VIII. INITIAL AND CONTINUING CALIBRATIONS

- Yes No
- ☒ ☐ The average relative response factors (RRF_{avg}) met validation criteria for all initial calibrations. **$RF > 0.05$**
- ☒ ☐ The percent relative standard deviation (%RSD) of the calibration or response factors (or correlation coefficients for regression analysis of calibration curves) met validation criteria for all initial calibrations. **$\%RPD \leq 15$, if 1st order fit then $r > 0.995$**
- ☒ ☐ Continuing calibrations were performed at the specified frequency. **1 per 12 hour sequence**
- ☒ ☐ The RRFs met validation criteria for all continuing calibrations. **$RRF > 0.05$**
- ☒ ☐ The percentage difference (%D) from the initial calibration met validation criteria for all continuing calibrations. **$\pm 25\%D$**

The following deficiencies were found:

Instr ID	Date/Time	Analyte	I / C	Calibration Deficiency	Affected Samples	Action
MSVOA4 MSVOA1 MSVOA3 MSVOA5 MSVOA2	10/09/01 10/25/01 10/30/01 10/19/01 10/29/01 11/01/01	All parameters are within control limits	I	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA3	11/05/01 at 10:17	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA4	10/25/01 at 09:08	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA1	10/25/01 at 13:22	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA4	10/26/01 at 09:54	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA1	11/02/01 at 12:00	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		

Calibration Deficiencies Table, cont.

Instr ID	Date/ Time	Analyte	I / C	Calibration Deficiency	Affected Samples	Action
MSVOA1	11/05 /01 at 13:26	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency _____ <input type="checkbox"/> r _____		
MSVOA5	10/30 /01 at 10:17	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency _____ <input type="checkbox"/> r _____		
MSVOA2	11/05 /01 at 11:30	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency _____ <input type="checkbox"/> r _____		

Remarks:

IX. INTERNAL STANDARDS

Yes

☒

No

☐

All internal standard areas were within control limits.

All retention times for the internal standards were within control limits.

The following deficiencies were found:

Sample ID	Internal Standard	Sample IS Area	IS Area Limits		Sample IS RT	IS RT Limit	
			Upper	Lower		Upper	Lower

Internal Standard	Name
IS1(DFB)	1,4-Difluorobenzene
IS2CBZ)	Chlorobenzene-d5
IS3(DCB)	1,4-Dichlorobenzene-d4
IS4	Not applicable

Remarks:

X. QUANTITATION LIMIT RESULTS

Yes ☒ No ☐

No deficiencies were found.

☐ ☒ Reported quantitation limits (RQLs) were provided, but contract required quantitation limits (CRQLs) were not met.

The following deficiencies were found:

Sample ID	Compound(s)	RQL	CRQL	Action
F11298-06	Toluene – See Note 1			

Remarks:

Note 1: Sample run 1:1 and 1:50. The 1:50 resulted in values less than the RL (Toluene = 226J) lab reported value from 1:1 run, which exceeds the upper calibration range by ~ 150 percent (Toluene = 344 E). The higher concentration value was accepted because it is a more conservative estimate.

Analyses were performed using diluted sample aliquots to properly quantify target parameters present at elevated concentrations. Nominal quantification limits were not achieved in samples F11289-02, -03, -04, -05, -06; F11298-03, -04, -05; F11333-03, -04, -05, -06, -08

XI. SAMPLE RESULT VERIFICATION (LEVEL D ONLY)

Yes ☐ No ☒

Calculations for all positive hits were verified.

The following discrepancies were found:

Analyte	Reported Value	Recalculated Value	Samples

Remarks:

Calculations were spot-checked.

SDG F11289
PAH Analysis by HPLC

Report of Analysis

Client Sample ID: 011-04-PREEB-W-02-Q3
Lab Sample ID: F13055-8
Matrix: AQ - Field Blank Soil
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20761.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.30	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		55-130%

omms 6/28/02

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3

Lab Sample ID: F13055-9

Date Sampled: 04/30/02

Matrix: SO - Soil

Date Received: 05/01/02

Method: FLORIDA-PRO SW846 3550B

Percent Solids: 93.7

Project: NAS Whiting Field CTO-0011

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20784.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	9.41	8.7	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	97%		66-130%
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anne 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of compound

0046

Report of Analysis

Client Sample ID: 011-04-MP-FD1-S-100'-Q3
Lab Sample ID: F13055-10
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 91.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20785.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	21.5	8.9	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	91%		66-130%
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cnw 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0030

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-18'-Q3

Lab Sample ID: F13055-11

Date Sampled: 04/30/02

Matrix: SO - Soil

Date Received: 05/01/02

Method: FLORIDA-PRO SW846 3550B

Percent Solids: 87.6

Project: NAS Whiting Field CTO-0011

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20786.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	23.9	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	91%		66-130%

Omnio 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0054

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q3
Lab Sample ID: F13055-12
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20804.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	19.5	8.9	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	100%		66-130%
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Cond 6/20/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0058

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-66'-Q3
Lab Sample ID: F13055-13
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20791.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	20.6	8.9	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	98%		66-130%
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Amu 6/25/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0062

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-18'-Q3
Lab Sample ID: F13055-14
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 89.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20792.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	14.6	9.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		66-130%

OMW 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0066

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q3
Lab Sample ID: F13055-15
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 94.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20793.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	7.67	9.0	mg/kg	J

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code*

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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	96%		66-130%

amo 6/28/02

0070

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q3
Lab Sample ID: F13055-16
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 92.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20794.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	31.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	29.5	8.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		66-130%

omms 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

0074

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-FD2-S-100'-Q3

Lab Sample ID: F13055-17

Date Sampled: 04/30/02

Matrix: SO - Soil

Date Received: 05/01/02

Method: FLORIDA-PRO SW846 3550B

Percent Solids: 89.3

Project: NAS Whiting Field CTO-0011

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20795.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	18.4	9.2	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	98%		66-130%
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Omn 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0078

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-PREEB-W-03-Q3
Lab Sample ID: F13066-1
Matrix: AQ - Field Blank Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20763.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		55-130%

OMO 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q3
Lab Sample ID: F13066-2
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: 87.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20796.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	9.32	9.7	mg/kg	J

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Code*
←

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		66-130%

anal 6/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3

Lab Sample ID: F13066-3

Date Sampled: 05/01/02

Matrix: SO - Soil

Date Received: 05/02/02

Method: FLORIDA-PRO SW846 3550B

Percent Solids: 91.1

Project: NAS Whiting Field CTO-0011

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20797.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	9.3	mg/kg	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		66-130%

omuo 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

0020

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
Lab Sample ID: F13066-4
Matrix: SO - Soil
Method: FLORIDA-PRO SW846 3550B
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: 93.2

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20798.D	1	05/08/02	ME	05/06/02	OP5088	GOP771
Run #2							

	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
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	TPH (C8-C40)	10.3	8.7	mg/kg	
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CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
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84-15-1	o-Terphenyl	96%		66-130%
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Amw 6/28/02

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: 011-04-POSTEB-W-01-Q3
Lab Sample ID: F13066-5
Matrix: AQ - Field Blank Water
Method: FLORIDA-PRO SW846 3510C
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OP20768.D	1	05/07/02	ME	05/06/02	OP5090	GOP771
Run #2							

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH (C8-C40)	ND	0.28	mg/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	99%		55-130%

05/06/28/02

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Wet Chemistry Analyses

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-22'-Q1
Lab Sample ID: F11289-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 86.1

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	86.1		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

OND 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-43'-Q1
Lab Sample ID: F11289-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 94.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.7		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1000 U	1000	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CMW 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-18'-Q1
Lab Sample ID: F11289-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 90.5

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.5		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CMMS 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-30'-Q1
Lab Sample ID: F11289-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/22/01
Date Received: 10/23/01
Percent Solids: 90.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.4		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1100 U	1100	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CMUO 6/28/02

analysis

Accutest Laboratories

Client Sample ID: 011-04-MP-30E-S-43'-Q1

Lab Sample ID: F11289-6

Matrix: SO - Soil

Project: NAS Whiting Field CTO-0011

Report of Analysis

Sampled: 10/22/01

Date Received: 10/23/01

Percent Solids: 93.5

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.5		%	1	10/30/01 EP	EPA 160.3 M
Total Organic Carbon	<1100 U	1100	mg/kg	1	10/26/01 ANJ	CORP ENG 81 M

CML 6/28/02

RL = Reporting Limit

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q1
Lab Sample ID: F11298-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 92.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.2		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

CRUD 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-BKGD-S-72'-Q1
Lab Sample ID: F11298-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 92.1

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.1		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

CMS 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-18-Q1
Lab Sample ID: F11298-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 87.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.2		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100 U	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

emo 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10N-S-38-Q1
Lab Sample ID: F11298-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/23/01
Date Received: 10/24/01
Percent Solids: 90.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.2		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	10/29/01 ANJ	CORP ENG 81 M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-5N-S-66'-Q1

Lab Sample ID: F11333-3

Date Sampled: 10/25/01

Matrix: SO - Soil

Date Received: 10/27/01

Percent Solids: 89.9

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.9		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMMO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18-Q1

Lab Sample ID: F11333-4

Matrix: SO - Soil

Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01

Date Received: 10/27/01

Percent Solids: 87.7

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.7			%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	<u>U</u>	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

Cms 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-43-Q1
Lab Sample ID: F11333-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/25/01
Date Received: 10/27/01
Percent Solids: 83.8

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	83.8		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMS 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-20S-S-18-Q1
Lab Sample ID: F11333-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 89.3

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.3		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMW06/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43-Q1
Lab Sample ID: F11333-7
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 93.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.4		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

Cmm 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72-Q1
Lab Sample ID: F11333-8
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 91.7

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.7			%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72-Q1
Lab Sample ID: F11333-9
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 10/26/01
Date Received: 10/27/01
Percent Solids: 90.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90		%	1	11/01/01 EP	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	11/08/01 ANJ	CORP ENG 81M/SW9060M

CMC 6/25/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-18'-Q2
Lab Sample ID: F12178-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 87.0

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	87			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q2

Lab Sample ID: F12178-3

Matrix: SO - Soil

Date Sampled: 01/30/02

Date Received: 01/31/02

Percent Solids: 91.1

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.1			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-72'-Q2
Lab Sample ID: F12178-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 88.4

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	88.4			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMS 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-18'-Q2
Lab Sample ID: F12178-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 88.3

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	88.3			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	1560		1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMC 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-38'-Q2
Lab Sample ID: F12178-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 91.9

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.9		%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-05N-S-66'-Q2
Lab Sample ID: F12178-7
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 92.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.2		%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-18'-Q2
Lab Sample ID: F12178-8
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 89.8

General Chemistry

Analyte	Result <u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.8		%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100 <u>U</u>	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q2
Lab Sample ID: F12178-9
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 01/30/02
Date Received: 01/31/02
Percent Solids: 89.0

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	89			%	1	02/01/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	<u>U</u>	1100	mg/kg	1	02/13/02 ANJ	CORP ENG 81M/SW9060M

cnms 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q2
Lab Sample ID: F12221-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 93.8

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.8		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

CMMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q2
Lab Sample ID: F12221-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 94.4

General Chemistry

Analyte	Result	<u>Q</u>	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.4			%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

cnms 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q2
Lab Sample ID: F12221-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 85.3

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	85.3		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q2
Lab Sample ID: F12221-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 93.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.4		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

onmo 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q2
Lab Sample ID: F12221-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 85.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	85.7		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1200	1200	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

CMMO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-43'-Q2
Lab Sample ID: F12221-7
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 02/04/02
Date Received: 02/05/02
Percent Solids: 92.0

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	92			%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	-1	02/14/02 ANJ	CORP ENG 81M/SW9060M

cmd 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-72'-Q2

Lab Sample ID: F12221-8

Matrix: SO - Soil

Date Sampled: 02/04/02

Date Received: 02/05/02

Percent Solids: 94.4

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.4		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

CMW 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-100'-Q2

Lab Sample ID: F12221-9

Matrix: SO - Soil

Date Sampled: 02/04/02

Date Received: 02/05/02

Percent Solids: 92.0

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	92		%	1	02/06/02 YA	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	02/14/02 ANJ	CORP ENG 81M/SW9060M

OWNO 02/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-22'-Q3
Lab Sample ID: F13055-2
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 89.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.6		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-43'-Q3
Lab Sample ID: F13055-3
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 94.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94.4		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMND 6/28/02

Report of Analysis

Client Sample ID: 011-04-BKGD-S-72'-Q3
Lab Sample ID: F13055-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 93.1

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.1		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

Umo 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-18'-Q3
Lab Sample ID: F13055-5
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 87.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.6		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMAA 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-43'-Q3
Lab Sample ID: F13055-6
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/29/02
Date Received: 05/01/02
Percent Solids: 93.9

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.9		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
Lab Sample ID: F13055-9
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 93.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.7		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/20/02

Report of Analysis

Client Sample ID: 011-04-MP-FD1-S-100'-Q3

Lab Sample ID: F13055-10

Matrix: SO - Soil

Date Sampled: 04/30/02

Date Received: 05/01/02

Percent Solids: 91.3

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.3		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-18'-Q3
Lab Sample ID: F13055-11
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 87.6

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.6			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMO 6/5/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-38'-Q3
Lab Sample ID: F13055-12
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.4		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-05N-S-66'-Q3
Lab Sample ID: F13055-13
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 90.5

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	90.5		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CND 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-18'-Q3
Lab Sample ID: F13055-14
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 89.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CNO 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-10W-S-43'-Q3
Lab Sample ID: F13055-15
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 94.0

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	94		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMMO 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-10W-S-72'-Q3
Lab Sample ID: F13055-16
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 04/30/02
Date Received: 05/01/02
Percent Solids: 92.2

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	92.2			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CMV 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-FD2-S-100'-Q3

Lab Sample ID: F13055-17

Matrix: SO - Soil

Date Sampled: 04/30/02

Date Received: 05/01/02

Percent Solids: 89.3

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	89.3		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/10/02 ANJ	CORP ENG 81M/SW9060M

CND 6/28/02

Report of Analysis

Client Sample ID: 011-04-MP-20S-S-18'-Q3

Lab Sample ID: F13066-2

Matrix: SO - Soil

Date Sampled: 05/01/02

Date Received: 05/02/02

Percent Solids: 87.8

Project: NAS Whiting Field CTO-0011

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	87.8			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/13/02 ANJ	CORP ENG 81M/SW9060M

CNO 6/28/02

Report of Analysis

Page 1 of 1

Client Sample ID: 011-04-MP-30E-S-43'-Q3

Lab Sample ID: F13066-3

Matrix: SO - Soil

Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02

Date Received: 05/02/02

Percent Solids: 91.1

General Chemistry

Analyte	Result	Q	RL	Units	DF	Analyzed By	Method
Solids, Percent	91.1			%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	U	1100	mg/kg	1	05/13/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/22/02

Report of Analysis

Client Sample ID: 011-04-MP-30E-S-72'-Q3
Lab Sample ID: F13066-4
Matrix: SO - Soil
Project: NAS Whiting Field CTO-0011

Date Sampled: 05/01/02
Date Received: 05/02/02
Percent Solids: 93.2

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed By	Method
Solids, Percent	93.2		%	1	05/03/02 LL	EPA 160.3 M
Total Organic Carbon	<1100	1100	mg/kg	1	05/13/02 ANJ	CORP ENG 81M/SW9060M

CMD 6/28/02

Chain of Custody Forms

004-0282
 004-0182
 004-0282

CHAIN-OF-CUSTODY RECORD

COC NUMBER:

151168-020501-01

PROJECT NUMBER:	LAST NAME AND CONTACT:	FAX AND MAIL REPORTS/EDO TO: RECIPIENT 1 (Name and Company)	RECIPIENT 1 (Address, Tel No., and Fax No.):
151168	Accident Investigation C-45-Orlando, FL C-45-Orlando, FL	Amy Twifty, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
CTO OR DO NUMBER:	LAB SO NUMBER:	FAX AND MAIL REPORTS/EDO TO: RECIPIENT 2 (Name and Company)	RECIPIENT 2 (Address, Tel No., and Fax No.):
CTO-0011	NO-2379	Charles Newsome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDO TO: RECIPIENT 3 (Name and Company)	RECIPIENT 3 (Address, Tel No., and Fax No.):
850-939-8300 ext. 17	407-425-6700	Tsliana Romanov & Bonny Hogue, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[illegible]

ID COMPANY: (please print)		COURIER AND SHIPPING NUMBER:		SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
Environ, CH2M Hill Constructors, Inc.		Fed-Ex Airbill No. 828535494203			
SIGNED BY		DATE	TIME	PRINTED NAME AND SIGNATURE	RECEIVED BY
[Signature]		05/01/2002	1800	M R HUN O H GHW P H	5/2/02
SIGNED BY		DATE	TIME	PRINTED NAME AND SIGNATURE	TIME
[Signature]					943
SIGNED BY		DATE	TIME	PRINTED NAME AND SIGNATURE	
[Signature]					
SIGNED BY		DATE	TIME	PRINTED NAME AND SIGNATURE	
[Signature]					

CHAIN-OF-CUSTODY RECORD

* COC NUMBER:

151168-020430-02

NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO:	RECIPIENT 1 (Address, Tel No., and Fax No.):
Billing Field	151168	Accutest Labs, 4405 Vineland Rd., Suite C-15, Orlando, FL 32571	RECIPIENT 1 (Name and Company): Amy Twitty, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
PHASE/SITE/TASK:	CTU OR DO NUMBER:	LAB PO NUMBER:	FAX AND MAIL REPORTS/EDD TO:	RECIPIENT 2 (Address, Tel No., and Fax No.):
	GTO-0011	PO 2379	RECIPIENT 2 (Name and Company): Christelle Newsome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181
City:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	FAX AND MAIL REPORTS/EDD TO:	RECIPIENT 3 (Address, Tel No., and Fax No.):
	850-539-8300 ext. 17	407-425-6700	RECIPIENT 3 (Name and Company): Tatiana Romanov & Bonny Hogue, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181

11 SAMPLE IDENTIFIER	12 SAMPLE DESCRIPTION/LOCATION	13 MATRIX (see codes on SOP)	14 DATE COLLECTED	15 TIME COLLECTED	16 DATA PKG LEVEL (see codes on SOP)	17 LAT (calendar days)	18 ANALYSES REQUIRED (Include Method Numbers)				19 SAMPLE TYPE (see codes on SOP)	20 COMMENTS/ SCREENING READINGS	21 LAB ID (for lab's use)
							22 PALS by 5310	23 TRPH by J.L. PRO	24 PALS by 5310	25 TPC/PTL PRO			
11-04-MP-05N-S-18'-Q3	04-MP-05N @ 18 foot depth	S	04/30/02	10:40	C	14	3	1			N	3ea. Syringe, 1 ea. 8-oz.	
11-04-MP-05N-S-18'-Q3 MS	04-MP-05N @ 18 foot depth - MS	S	04/30/02	10:40	C	14	3	1			MS	3ea. Syringe, 1 ea. 8-oz.	
11-04-MP-05N-S-18'-Q3 MSD	04-MP-05N @ 18 foot depth - MSD	S	04/30/02	10:40	C	14	3	1			SD	3ea. Syringe, 1 ea. 8-oz.	
11-04-MP-05N-S-38'-Q3	04-MP-05N @ 38 foot depth	S	04/30/02	11:20	C	14	3	1			N	3ea. Syringe, 1 ea. 8-oz.	
11-04-MP-05N-S-66'-Q3	04-MP-05N @ 66 foot depth	S	04/30/02	12:20	C	14	3	1			N	3ea. Syringe, 1 ea. 8-oz.	
011-04-MP-10W-S-18'-Q3	04-MP-10W @ 18 foot depth	S	04/30/02	14:20	C	14	3	2			N	3ea. Syringe, 1 ea. 8-oz.	
011-04-MP-10W-S-43'-Q3	04-MP-10W @ 43 foot depth	S	04/30/02	14:50	C	14	3	2			N	3ea. Syringe, 1 ea. 8-oz.	
011-04-MP-10W-S-72'-Q3	04-MP-10W @ 72 foot depth	S	04/30/02	15:50	C	14	3	2			N	3ea. Syringe, 1 ea. 8-oz.	
011-04-MP-FD2-S-100'-Q3	04-MP-FD2 @ 100 foot depth	S	04/30/02	xxxxx	C	14	3	1			FD2	3ea. Syringe, 1 ea. 8-oz.	
011-04-POSTER-W-01-Q3	Post Equipment Rhinostat Blank	W	04/30/02	17:35	C	14	3	1	1		EB	3ea. 40ml VOAs, 2 ea. 1-liter	

19 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	20 COURIER AND SHIPPING NUMBER:	21 RELINQUISHED BY:	22 DATE:	23 TIME:
	Fed-Ex Airbill No. 828535494214	CA # ELVEEN	04/30/2002	1800
24 RECEIVED BY:	25 DATE:	26 TIME:	27 SIGNATURE:	28 SIGNATURE:
			04/30/02	04/30/02
29 SIGNATURE:	30 SIGNATURE:	31 SIGNATURE:	32 SIGNATURE:	33 SIGNATURE:

CHAIN-OF-CUSTODY RECORD 1-18522

151168-020430-01

CONSTRUCTORS, INC.		Form No. (770) 604-9282	
NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	11 FAX AND MAIL REPORTS/IED TO: RECIPIENT 1 (Name and Company)
Building Field	151168	Accutest Lab, 4405 Vlasland Rd., Suite C-15, Orlando, FL 32571	1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
PHASE/SITE/TASK:	* CTO OR DO NUMBER:	* LAB PO NUMBER:	12 RECIPIENT 2 (Address, Tel No., and Fax No.):
	CTO-0011	PO 2379	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181
	* PROJECT TEL NO AND FAX NO:	* LAB TEL NO AND FAX NO:	13 RECIPIENT 3 (Address, Tel No., and Fax No.):
ility	850-939-8300 ext. 17	407-425-6700	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770-604-9181

18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 CAF (calendar days)	25 ANALYTES REQUIRED (Include Method Numbers)						26 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/ SCREENING READINGS	28 LAB ID (for lab use)	
							BTEX by MS/MSD	PAHs by MS	TPH by PL-PRO	PAHs (16), TRF (17), PRO						
011-04-PREEB-W-01-Q3	Pre Equipment Rinseate Blank	W	04/29/02	12:00	C	14	3	1	1					3 ea. 40ml VOAs, 2 ea. 1-liter	EB	
011-04-BKGD-S-22-Q3	Background Location @ 22 foot depth	S	04/29/02	12:30	C	14	3			1				3 ea. Syringes, 1 ea. 8-oz.	N	
011-04-BKGD-S-43-Q3	Background Location @ 43 foot depth	S	04/29/02	13:20	C	14	3			1				3 ea. Syringes, 1 ea. 8-oz.	N	
011-04-BKGD-S-72-Q3	Background Location @ 72 foot depth	S	04/29/02	16:25	C	14	3			1				3 ea. Syringes, 1 ea. 8-oz.	N	
011-04-MP-30E-S-18-Q3	04-MP-30E @ 18 foot depth	S	04/29/02	17:05	C	14	3			1				3 ea. Syringes, 1 ea. 8-oz.	N	
011-04-MP-30E-S-43-Q3	04-MP-30E @ 43 foot depth	S	04/29/02	17:50	C	14	3			1				3 ea. Syringes, 1 ea. 8-oz.	N	
011-04-POSTEB-W-01-Q3	Post Equipment Rinseate Blank	W	04/29/02	17:35	C	14	3	1	1					3 ea. 40ml VOAs, 2 ea. 1-liter	EB	
011-04-PREEB-W-02-Q3	Pre Equipment Rinseate Blank	W	04/30/02	9:00	C	14	3	1	1					3 ea. 40ml VOAs, 2 ea. 1-liter	EB	
011-04-MP-30E-S-72-Q3	04-MP-30E @ 72 foot depth	S	04/30/02	9:45	C	14	3			1				3 ea. Syringes, 1 ea. 8-oz.	N	
011-04-MP-FD1-S-100-Q3	04-MP-FD1 @ 100 foot depth	S	04/30/02	XXXX	C	14	3			1				3 ea. Syringes, 1 ea. 8-oz.	FD	

1. FROM AND COMPANY: (please print) McGraw-Hill Construction, Inc.		2. COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No. 828335494214		3. SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
4. RELINQUISHED BY: 		5. RECEIVED BY: 		6. DATE 05/01/02	
7. TIME 1800		8. PRINTED NAME AND SIGNATURE: J. H. ...		9. TIME 0000	
10. DATE 04/30/2002		11. PRINTED NAME AND SIGNATURE: J. H. ...		12. TIME 0000	
13. SIGNATURE: 		14. PRINTED NAME AND SIGNATURE: J. H. ...		15. TIME 0000	
16. SIGNATURE: 		17. PRINTED NAME AND SIGNATURE: J. H. ...		18. TIME 0000	

CHAIN-OF-CUSTODY RECORD

151168-020430-03

[illegible]

CHAIN-OF-CUSTODY RECORD

151168-011023-01

NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company):	RECIPIENT 1 (Address, Tel No., and Fax No.):
iting Field	151168	Accutest Laboratory, 4405 Vineland RD, C-15, Orlando, FL 32811	Amy Twitty, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035
PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:	RECIPIENT 2 (Name and Company):	RECIPIENT 2 (Address, Tel No., and Fax No.):
	CTO-0011	PO 2379	Christelle Newsome, CH2M Hill, Constructors, Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone-770-604-9182 Fax-770-604-9181
CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:	RECIPIENT 3 (Name and Company):	RECIPIENT 3 (Address, Tel No., and Fax No.):
lity	850-939-8300 ext. 17	407-425-6700	Lisa Schwan, CH2M Hill Constructors Inc.	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone-770-604-9182 Fax-770-604-9181

2 ANALYSES REQUIRED (Include Method Numbers)										24 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/ SCREENING READINGS	28 LAB ID (for lab's use)
19 SAMPLE IDENTIFIER	20 SAMPLE DESCRIPTION/LOCATION	23 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	BTEX by 5035/8021B	PAHs by 8310	TRPH by FL-PRO			
11-04-TRIPB-W-02-Q1	Trip Blank	W	10/23/01	9:05	C	14	3	1	1	QC	2ea. 40ml VOAs	
1-04-PREEB-W-02-Q1	Pre Equipment Rinseate Blank	W	10/23/01	9:00	C	14	2	1	1	QC	2ea. 40ml VOAs, 2 ea. 1-liter	
1-04-MP-30E-S-72-Q1	04-MP-30E @ 72 foot depth	S	10/23/01	10:45	C	14	3		2	N	3ea. Encore & 2 ea. 8-oz.	
11-04-BKGD-S-72-Q1	Background @ 72 foot depth	S	10/23/01	15:30	C	14	3		2	N	3ea. Encore & 2 ea. 8-oz.	
11-04-MP-10N-S-18-Q1	04-MP-10N @18 foot depth	S	10/23/01	16:25	C	14	3		2	N	3ea. Encore & 2 ea. 8-oz.	
11-04-MP-10N-S-38-Q1	04-MP-10N @38 foot depth	S	10/23/01	16:55	C	14	3		2	N	3ea. Encore & 2 ea. 8-oz.	
1-04-MP-10N-S-38-Q1-MS	04-MP-10N @38 foot depth	S	10/23/01	16:55	C	14	3		2	MS	3ea. Encore & 2 ea. 8-oz.	
1-04-MP-10N-S-38-Q1-MSD	04-MP-10N @38 foot depth	S	10/23/01	16:55	C	14	3		2	SD	3ea. Encore & 2 ea. 8-oz.	
11-04-POSTEB-W-02-Q1	Post Equipment Rinseate Blank	W	10/23/01	17:25	C	14	2	1	1	QC	2ea. 40ml VOAs, 2 ea. 1-liter,,	

25 COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No.83074796114	26 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
--	--

27 RELINQUISHED BY Name and Signature: <i>Therese S. [Signature]</i>	28 RECEIVED BY Printed Name and Signature: <i>Fed-Ex</i>	DATE <i>10-23-01</i>	TIME <i>1:30</i>
29 Name and Signature: <i>[Signature]</i>	30 Name and Signature: <i>H. WANDERLEY</i>	DATE <i>10-24-01</i>	TIME <i>10:00</i>

115 Perimeter Center Place, Suite 700
Atlanta, GA 30348-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

151168-011025-02

COC NUMBER:

CONSTRUCTORS, INC.		FAX NO: (770) 604-9282	
1	2	3	4
PROJECT NUMBER:	LAB NAME AND CONTACT:	5	6
151168	Accutest Laboratory, 4405 Vineland RD, C-15, Orlando, FL 32811	7	8
CTO OR DO NUMBER:	LAB PO NUMBER:	9	10
CTO-0011	PO 2379	11	12
13	14	15	16
17	18	19	20

[illegible]

2) AND COMPANY: (please print) J. CH2M Hill, Inc.		32) RELINQUISHED BY		33) RECEIVED BY		34) SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)	
30) COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No.		DATE		TIME		DATE	
DATE		TIME		Printed Name and Signature:		TIME	
10/26/01		1600		FEDEX			
and Signature: [Signature]				Printed Name and Signature:		10/27/01	
and Signature:				[Signature]		10:00	
and Signature:				Printed Name and Signature:			

115 Perimeter Center Place, Suite 700
Atlanta, GA 30345-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

151168-011025-01

[illegible]

11. RELINQUISHED BY		12. RECEIVED BY		13. SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)	
Signature:	DATE	Printed Name and Signature:	DATE	TIME	
Signature: <i>[Signature]</i>	10-25-01	Printed Name and Signature: Ryan Bitely <i>[Signature]</i>	10/26/01	1500	
Signature: <i>[Signature]</i>	10-26-01	Printed Name and Signature: FEDEX			
Signature: <i>[Signature]</i>		Printed Name and Signature: <i>[Signature]</i>	10/27/01	10:50	

CHAIN-OF-CUSTODY RECORD

COC NUMBER:

151168-020130-01

PROJECT NAME: 151168	PROJECT NUMBER: 4405 Vineland Rd	LAB NAME AND CONTACT: Accutest Laboratory, 3335 Peachtree 130, Bldg B, Peachtree City, GA 30092	FAX AND MAIL REPORTS/EDD TO: Amy Twitty, CH2M Hill, Inc.	FAX AND MAIL REPORTS/EDD TO: Christelle Newsome, CH2M Hill, Constructors, Inc.	FAX AND MAIL REPORTS/EDD TO: Tatiana Romanova & Bonnie Hogue, CH2M Hill Constructors Inc.	FAX AND MAIL REPORTS/EDD TO: 115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
CTO OR DO NUMBER: CTO-0011	CTO OR DO NUMBER: PO 2379	LAB TEL NO AND FAX NO: 850-939-8300 ext. 17	LAB TEL NO AND FAX NO: 732-329-0200	LAB TEL NO AND FAX NO: 732-329-0200	LAB TEL NO AND FAX NO: 732-329-0200	LAB TEL NO AND FAX NO: 732-329-0200

11 SAMPLE IDENTIFIER	12 SAMPLE DESCRIPTION/LOCATION	13 MATRIX (see codes on SOP)	14 DATE COLLECTED	15 TIME COLLECTED	16 DATA PKG LEVEL (see codes on SOP)	17 TAT (calendar days)	18 ANALYSES REQUIRED (Include Method Numbers)					20 SAMPLE TYPE (see codes on SOP)	21 COMMENTS/ SCREENING READINGS	22 LAB ID (for lab's use)
							BTX by 5035/8021B	PAHs by 8310	TRPH by FL-PRO	TOC by 9060				
011-04-PREB-W-01-Q2	Pre Equipment Rinsate Blank	W	01/30/02	1030	C	14	3	2	2			QC	3ea. 40ml VOAs, 2 ea. 1- liter	
011-04-MP-10W-S-18'- Q2	04-MP-10W @ 18 foot depth	S	01/30/02	1115	C	14	3	1	1	1		N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-10W-S-43'- Q2	04-MP-10W @ 43 foot depth	S	01/30/02	1140	C	14	3	1	1	1		N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-10W-S-72'- Q2	04-MP-10W @ 72 foot depth	S	01/30/02	1400	C	14	3	1	1	1		N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-18'-Q2	04-MP-05N @ 18 foot depth	S	01/30/02	1500	C	14	3	1	1	1		N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-38'-Q2	04-MP-05N @ 38 foot depth	S	01/30/02	1600	C	14	3	1	1	1		N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-66'-Q2	04-MP-05N @ 66 foot depth	S	01/30/02	1635	C	14	3	1	1	1		N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-18'-Q2 MS	04-MP-05N @ 18 foot depth	S	01/30/02	1500	C	14	3	1	1	1		MS	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-05N-S-18'-Q2 SD	04-MP-05N @ 18 foot depth	S	01/30/02	1500	C	14	3	1	1	1		SD	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-30E-S-18'-Q2	04-MP-30E @ 18 foot depth	S	01/30/02	1710	C	14	3	1	1	1		N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	

19 LEAKS AND COMPANY (please print) Dunbar, CH2M Hill Constructors, Inc.		23 COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No.		24 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
25 RELINQUISHED BY Name and Signature: <i>Scott Dunbar</i>	26 RECEIVED BY Printed Name and Signature: <i>Fred-Ex</i>	27 DATE 1-30-02	28 TIME 1450	29 DATE 1-31-02	30 TIME 10:00
31 Name and Signature: <i>Scott Dunbar</i>	32 Name and Signature: <i>Scott Dunbar</i>				
33 Name and Signature:	34 Name and Signature:				

CHAIN-OF-CUSTODY RECORD

COC NUMBER:

151168-020130-02

[illegible]

CHAIN-OF-CUSTODY RECORD

151168-020205-01

PROJECT NUMBER: 151168		LAB NAME AND CONTACT: Accutest Laboratory, 4405 Vine-land Rd., C-15, Orlando, FL 32811		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company) Amy Twitty, CH2M Hill, Inc.		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Address, Tel No., and Fax No.): 1766 Sea Lark Lane, Navarre, FL 32566 (phone) 850-939-8300, (fax) 850-939-0035	
CTO OR DO NUMBER: CTO-0011		LAB PO NUMBER: PO 2379		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company) Christelle Newsome, CH2M Hill, Constructors, Inc.		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Address, Tel No., and Fax No.): 115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346, Phone=770-604-9182 Fax=770-604-9181	
PROJECT TEL NO AND FAX NO: 850-939-8300 ext. 17		LAB TEL NO AND FAX NO: 407-425-6700		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company) Tatiana Romanova & Bonnie Hogue, CH2M Hill Constructors Inc.		FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Address, Tel No., and Fax No.): 115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346, Phone=770-604-9182 Fax=770-604-9181	

18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	25 ANALYSES REQUIRED (Include Method Numbers)						26 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/SCREENING READINGS	28 LAB ID (for lab's use)
							BTEX by 5035/8021B	PAHs by 8310	TRPH by FL-PRO	TOC by 9060					
011-04-PREEB-W-02-Q2	Pre Equipment Rinsate Blank	W	02/05/02	0900	C	14	3	2	2				QC	3ea. 40ml VOAs, 2 ea. 1-liter	
011-04-MP-30E-S-72-Q2	04-MP-30E @ 72 foot depth	S	02/05/02	0905	C	14	3	1	1	1			N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-BKGD-S-22-Q2	Background Location @ 22 foot depth	S	02/05/02	1255	C	14	3	1	1	1			N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-BKGD-S-43-Q2	Background Location @ 43 foot depth	S	02/05/02	1345	C	14	3	1	1	1			N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-BKGD-S-72-Q2	Background Location @ 72 foot depth	S	02/05/02	1435	C	14	3	1	1	1			N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-18-Q2	04-MP-20S @ 18 foot depth	S	02/05/02	0950	C	14	3	1	1	1			N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-43-Q2	04-MP-20S @ 43 foot depth	S	02/05/02	1025	C	14	3	1	1	1			N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-72-Q2	04-MP-20S @ 72 foot depth	S	02/05/02	1115	C	14	3	1	1	1			N	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-MP-20S-S-100-Q2	04-MP-20S @ 100 foot depth	S	02/05/02	—	C	14	3	1	1	1			FD	3ea. Encore, 1 ea. 8-oz., 1 ea. 4-oz	
011-04-POSTEB-W-02-Q2	Post Equipment Rinsate Blank	W	02/05/02	1415	C	14	3	2	2				QC	3ea. 40ml VOAs, 2 ea. 1-liter	

COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No. 830374779887		SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
830374779887		830374779887	
RELINQUISHED BY Date and Signature:	RECEIVED BY Date and Signature:	DATE	TIME
DATE AND SIGNATURE:	DATE AND SIGNATURE:	DATE	TIME
		02/05/02	1000

CHAIN-OF-CUSTODY RECORD

' COC NUMBER:

151168-020205-02

PROJECT NAME:	PROJECT NUMBER:	LAB NAME AND CONTACT:	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company)	FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)	14 RECIPIENT 1 (Address, Tel No., and Fax No.):	15 RECIPIENT 2 (Address, Tel No., and Fax No.):	16 RECIPIENT 3 (Address, Tel No., and Fax No.):
Whiting Field	151168	Accutest Laboratory, 4405 Vine-land Rd., C-15, Orlando, FL 32811	Amy Twitty, CH2M Hill, Inc.			1766 Sea Lark Lane, Navarre, FL. 32566 (phone) 850-939-8300, (fax) 850-939-0035		
PROJECT PHASE/SITE/TASK:	CTO OR DO NUMBER:	LAB PO NUMBER:						
	CTO-0011	PO 2379	Christelle Newsome, CH2M Hill, Constructors, Inc.				115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346- Phone=770-604-9182 Fax=770.604.9181	
PROJECT CONTACT:	PROJECT TEL NO AND FAX NO:	LAB TEL NO AND FAX NO:						
Twitty	850-939-8300 ext. 17	407-425-6700	Tatiana Romanova & Bonnie Hogue, Hill Constructors Inc.				115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346- Phone=770-604-9182 Fax=770.604.9181	

[illegible]

1. CARRIER AND COMPANY: (please print) Dunbar, CH2M Hill Constructors, Inc.		2. COURIER AND SHIPPING NUMBER: Fed-Ex Airbill No. 830374779887		3. SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):	
4. RELINQUISHED BY Name and Signature:		5. RECEIVED BY Printed Name and Signature: <i>Paul S. Davis</i>		DATE 02-05-12	
Name and Signature:		Printed Name and Signature:		TIME 600	
Name and Signature:		Printed Name and Signature:		TIME	
Name and Signature:		Printed Name and Signature:		TIME	



**4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0700**

ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES		
PROJECT NAME			F11289						DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID		
LOCATION											
PROJECT NO.											
FAX #											
FIELD ID / POINT OF COLLECTION			COLLECTION			PRESERVATION			LAB USE ONLY		
CUTEST SAMPLE #	DATE	TIME	SAMPLED BY:	MATRIX	NO. OF TILES	Q1	Q2	Q3	Q4	Q5	Q6
F11289-2	10-22-01	11:20	CH24444	SO	1						
-3		14:10			1						
-4		16:30			1						
-5		16:40			1						
-6		17:20			1						
DATA TURNOVER INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS					
STANDARD			APPROVED BY:								
18 HOUR RUSH											
24 HOUR EMERGENCY											
OTHER 1400Y TAT											
AGENCY OR RUSH IS FAX DATA											
LESS PREVIOUSLY APPROVED											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY			DATE TIME: 10-27-01			RECEIVED BY: 1. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 2. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 3. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 4. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 5. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 6. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 7. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 8. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 9. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 10. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 11. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 12. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 13. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 14. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 15. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 16. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 17. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 18. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 19. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 20. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 21. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 22. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 23. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 24. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 25. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 26. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 27. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 28. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 29. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 30. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 31. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 32. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 33. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 34. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 35. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 36. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 37. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 38. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 39. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 40. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 41. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 42. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 43. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 44. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 45. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 46. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 47. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 48. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 49. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 50. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 51. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 52. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 53. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 54. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 55. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 56. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 57. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 58. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 59. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 60. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 61. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 62. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 63. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 64. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 65. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 66. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 67. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 68. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 69. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 70. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 71. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 72. [Signature]			DATE TIME: 10-27-01			RECEIVED BY: 73. [Signature]			DATE TIME: 10-27-01		
RECEIVED BY: 74. [Signature]			DATE TIME: 1								



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15

ORLANDO, FL 32811

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ACCUTEST JOB #:

ACCUTEST QUOTE #:

10-54-01376

[illegible]



CHAIN OF CUSTODY

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ACCUTEST JOB #:

ACCUTEST QUOTE #:[illegible]

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ACCUTEST JOB #:**ACCUTEST QUOTE #:**[illegible]



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ACCUTEST JOB #:

ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES		
PROJECT NAME F12221		LOCATION F12221				DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LQ - OTHER LIQUID SOL - OTHER SOLID		
PROJECT NO.		PROJECT NO.						
FAX #		FAX #						
EST #	FIELD ID / POINT OF COLLECTION	COLLECTION		SAMPLED BY:	MATRIX	BOTTLES	PRESERVATION	LAB USE ONLY
		DATE	TIME					
	F12221-2	02/01/02	0905	CHAM	SO	1		
	-3		1255			1		
	-4		1345			1		
	-5		1435			1		
	-6		0930			1		
	-7		1025			1		
	-8		1145			1		
	-9		-			1		
DATE TURNAROUND INFORMATION								
DATA DELIVERABLE INFORMATION				COMMENTS/REMARKS				
NDARD OUR RUSH OUR EMERGENCY IER 14 day NCY OR RUSH IS FAX DATA PREVIOUSLY APPROVED				AWT - AW				
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY								
DATE TIME: 02/01/02 - 1600		RECEIVED BY: 1. [Signature]		DATE TIME: 2/8/02 1115		RECEIVED BY: 2. [Signature]		
DATE TIME:		RECEIVED BY: 3. [Signature]		DATE TIME:		RECEIVED BY: 4. [Signature]		
DATE TIME:		RECEIVED BY: 5. [Signature]		DATE TIME:		RECEIVED BY: 6. [Signature]		



CHAIN OF CUSTODY

TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST QUOTE #:

TRJ



CHAIN OF CUSTODY

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ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

TEL: 407-425-8700 • FAX: 407-425-0707

ACCOUNTS JOB #:**ACCUTEST QUOTE #:**

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES		
See page 1 NAME _____ ADDRESS _____ CITY, _____ STATE _____ ZIP _____ PHONE # _____ FAX # _____			PROJECT NAME _____ LOCATION _____ PROJECT NO. _____ FAX # _____			DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE LIQ - OTHER LIQUID SOL - OTHER SOLID			LAB USE ONLY 151		
FIELD ID / POINT OF COLLECTION			COLLECTION			PRESERVATION			COMMENTS/REMARKS		
ACCUTEST SAMPLE #	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	CH	HOW	COM	POSE	MON	
F13055-15	04/30/02	1450	C12MHL	SD	1						
-16	↓	1550	↓	↓	1						
-17	↓	DONE	↓	↓	1						
F13055-15			F13055-16			F13055-17			F13055-18		
F13055-19			F13055-20			F13055-21			F13055-22		
F13055-23			F13055-24			F13055-25			F13055-26		
F13055-27			F13055-28			F13055-29			F13055-30		
F13055-31			F13055-32			F13055-33			F13055-34		
F13055-35			F13055-36			F13055-37			F13055-38		
F13055-39			F13055-40			F13055-41			F13055-42		
F13055-43			F13055-44			F13055-45			F13055-46		
F13055-47			F13055-48			F13055-49			F13055-50		
F13055-51			F13055-52			F13055-53			F13055-54		
F13055-55			F13055-56			F13055-57			F13055-58		
F13055-59			F13055-60			F13055-61			F13055-62		
F13055-63			F13055-64			F13055-65			F13055-66		
F13055-67			F13055-68			F13055-69			F13055-70		
F13055-71			F13055-72			F13055-73			F13055-74		
F13055-75			F13055-76			F13055-77			F13055-78		
F13055-79			F13055-80			F13055-81			F13055-82		
F13055-83			F13055-84			F13055-85			F13055-86		
F13055-87			F13055-88			F13055-89			F13055-90		
F13055-91			F13055-92			F13055-93			F13055-94		
F13055-95			F13055-96			F13055-97			F13055-98		
F13055-99			F13055-100			F13055-101			F13055-102		
F13055-103			F13055-104			F13055-105			F13055-106		
F13055-107			F13055-108			F13055-109			F13055-110		
F13055-111			F13055-112			F13055-113			F13055-114		
F13055-115			F13055-116			F13055-117			F13055-118		
F13055-119			F13055-120			F13055-121			F13055-122		
F13055-123			F13055-124			F13055-125			F13055-126		
F13055-127			F13055-128			F13055-129			F13055-130		
F13055-131			F13055-132			F13055-133			F13055-134		
F13055-135			F13055-136			F13055-137			F13055-138		
F13055-139			F13055-140			F13055-141			F13055-142		
F13055-143			F13055-144			F13055-145			F13055-146		
F13055-147			F13055-148			F13055-149			F13055-150		
F13055-151			F13055-152			F13055-153			F13055-154		
F13055-155			F13055-156			F13055-157			F13055-158		
F13055-159			F13055-160			F13055-161			F13055-162		
F13055-163			F13055-164			F13055-165			F13055-166		
F13055-167			F13055-168			F13055-169			F13055-170		
F13055-171			F13055-172			F13055-173			F13055-174		
F13055-175			F13055-176			F13055-177			F13055-178		
F13055-179			F13055-180			F13055-181			F13055-182		



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ACCUTEST JOB #:**ACCUSET QUOTE #:**[illegible]

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Appendix B

Data Validation Checklists

SDG F11289
Volatiles Analysis by GC/MS

**QUALITY ASSURANCE REVIEW
DATA VALIDATION CHECKLIST
Volatile Organic Analytes by GC/MS**

Project File(s)	F11289, F11298, F11333	Sampling Date(s)	10/22/02, 10/23/02, 10/26/01
Laboratory	Accutest – Orlando FL	Receipt Date(s)	Next Day
SDG Number	F11289	Matrix	<input type="checkbox"/> Water <input type="checkbox"/> Air <input checked="" type="checkbox"/> Soil/Sediment with aqueous field QC samples

Sample Identification Numbers:

F11289-01 ^{EB}	F11289-06	F11298-03	F11333-01 ^{TB}	F11333-06	
F11289-02	F11289-07 ^{EB}	F11298-04	F11333-02 ^{EB}	F11333-07	
F11289-03	F11289-08 ^{TB}	F11298-05	F11333-03	F11333-08	
F11289-04 ^{FD}	F11298-01 ^{TB}	F11298-06	F11333-04	F11333-09	
F11289-05	F11298-02 ^{EB}	F11298-07 ^{EB}	F11333-05	F11333-10 ^{EB}	

The general criteria used to determine the data performance and quality assurance were based on:

- ☐ Hazardous Waste Remedial Actions Program (HAZWRAP) Requirements for Quality Control of Analytical Data (HAZWRAP DOE/HWP-65/R2)
- ☐ USEPA Contract Laboratory Program (CLP) National Laboratory Functional Guidelines for Organic Data Review (EPA-540/R-94/012, February 1993)
- ☒ USEPA SW846 (SW-846) Methods (8260)
- ☐ USEPA Drinking Water (DW) Methods (524.2, 624, 1624)
- ☐ Air Force Center for Environmental Excellence (AFCEE) QAPP Version 3.0
- ☒ Other:

Laboratory established accuracy and precision control limits.

The following parameters were examined: holding time and sample preservation, surrogate spike results, matrix spike / matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, method blank results, field, trip, and/or rinsate blank results, field duplicate results, instrument tuning and performance, initial and continuing calibrations, internal standard performance, and quantitation limits.

Reviewed by: Chris Orland

Date: 6/25/02

QA Concurrence by: _____

Date: _____

Validation Summary

The MS/MSD recoveries for ethylbenzene and xylene were below the lower control limit. The presence of these parameters in the primary sample may have interfered with the analyses. The results of the primary sample have been qualified as estimated and flagged "J" for ethylbenzene and xylene.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

U - Not detected.
R - Unusable.

E*Data, Inc.
Volatile Validation Checklist
June 2002

I. HOLDING TIME AND SAMPLE PRESERVATION

No

22

All samples were handled and preserved according to requirements.

All samples were extracted and analyzed within holding time criteria.

The following deficiencies were found:

[illegible]

Remarks:

II. SURROGATE SPIKE RECOVERIES

Yes



No



No deficiencies were found.



At least one of the deficient recoveries was outside control limits due to dilutions.

Sample ID	Surrogate 1	Surrogate 2	Surrogate 3	Surrogate 4

Surrogate	Name	QC Limits	
		Water	Soil
SMC1 (DFM)	Dibromofluoromethane	80 – 120	75 – 125
SMC2 (TOL)	Toluene-d8	80 – 120	75 – 125
SMC3 (BFB)	p-Bromofluorobenzene	80 – 120	72 – 137
SMC4 (DCB)	1,2-dichlorobenzene-d4	80 – 120	68 – 125

Remarks:

III. MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS

Yes



No



Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis was requested for this SDG.



MS/MSD analysis was performed on sample **F11298-06** found in SDG# **F11298** and sample **F11333-07** found in SDG# **F11333**.



All recoveries and relative percent differences (RPDs) were within control limits.

The following deficiencies were found:

Matrix	Analyte	MS Recovery	MSD Recovery	MS/MSD QC Limits	RPD	RPD Limit

MS/MSD Summary: Unacceptable recoveries per the total number of matrix spike recoveries in the fraction.
See Form III in data package.

Sample ID	F11298-06			
SDG	F11298		Matrix	Soil
RPD	0	out of	4	outside limits
Spike Rec.	0	out of	8	outside limits

Sample ID	F11333-07			
SDG	F11333		Matrix	Soil
RPD	0	out of	4	Outside limits
Spike Rec.	0	out of	8	outside limits

Remarks:

Note: No action will be taken based on MS/MSD data alone. Sample results may be affected by either a positive or negative bias due to deficient recoveries.

IV. LABORATORY CONTROL SAMPLE

Yes

No



At least one LCS analysis was performed per batch of samples.



LCS recoveries were within criteria.

The following compounds fell outside the specified QC limits:

LCS ID	Matrix	Compound	%R	Control Limits	Qualifier Flags

LCS Summary: Unacceptable recoveries for each LCS analysis in the SDG.

LCS ID	VB293-BS	Matrix:	Water	LCS ID	VG479-BS	Matrix:	Soil
Spike Recovery	0	Out of	4	Outside Limits	Spike Recovery	0	Out of 4 Outside Limits

LCS ID	VH443-BS	Matrix:	Soil	LCS ID	VB294-BS	Matrix:	Water
Spike Recovery	0	Out of	4	Outside Limits	Spike Recovery	0	Out of 4 Outside Limits

LCS ID	VG482-BS	Matrix:	Soil	LCS ID	VG483-BS	Matrix:	Soil
Spike Recovery	0	Out of	3	Outside Limits	Spike Recovery	0	Out of 4 Outside Limits

LCS ID	VC304-BS	Matrix:	Water	LCS ID	VK246-BS	Matrix:	Soil
Spike Recovery	0	Out of	4	Outside Limits	Spike Recovery	0	Out of 4 Outside Limits

Remarks:

V. BLANK ANALYSIS RESULTS

A. Laboratory Blanks (Deficiencies for method blanks, instrument blanks, etc.):

[illegible]

Remarks:

All method blanks were absent target parameters at concentrations greater than the report limits.

B. Field QC (Blanks):

Yes

No



Field QC samples were associated with this SDG.

Field QC associated with this SDG were:

Trip Blanks		Equipment Rinsate Blanks			
F11289-08 ^{TB}		F11289-01 ^{EB}	F11333-02 ^{EB}		
F11298-01 ^{TB}		F11289-07 ^{EB}	F11333-10 ^{EB}		
F11333-01 ^{TB}		F11298-02 ^{EB}			
		F11298-07 ^{EB}			

The following contaminants were detected in the field QC:

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples

Remarks:

All trip blank and field equipment rinsate blank analyses were absent target parameters at concentration greater than the report limits.

VI. FIELD PRECISION RESULTS

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Field duplicate data were included in this data package. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Qualification of field duplicate data was attempted. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Relative percent differences (RPDs) between duplicate sample results was less than 25% for liquid (30% for solid samples) when both sample values were $\geq 5 \times$ the RL. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | When one or both results were $< 5 \times$ the RL, RPDs between duplicate sample results were less than $1 \times$ RL for water samples ($2 \times$ RL for soil samples). |

Note: In the absence of project specified criteria the following guidelines are recommended:

- ☐ ~~☐~~ For sample results $> 5 \times$ the RL, the RPD between field duplicate samples was $< 40\%$ for water samples (70% for soil samples).
- ☐ ~~☐~~ For sample results $< 5 \times$ the RL, the RPD between field duplicate samples was less than the RL for water samples (less than $2 \times$ the RL for soil samples).

Field Sample/Duplicate ID: F11289-04/-05 Matrix: Soil

The relative percent difference (RPD) is calculated for each positive result identified in either the sample or field duplicate.

RPD is calculated using the following equation:

$$\text{RPD} = \frac{|A-B|}{(A+B)/2} \times 100$$

A = Sample Result

B = Duplicate Sample Result

Field Precision Evaluation Deficiency Worksheet:

Analyte	RL	5 x RL	Sample Result	Duplicate Result	RPD	Action
Benzene	2300	11500	ND	ND	NC	None
Toluene	2300	11500	ND	118	NC	None
Ethylbenzene	2300	11500	38400	15900	83%	J detects
Xylene	6900	34500	91000	38800	80%	J detects

Remarks:

NC is not calculated due to concentration levels less than 5 times the RL.

VII. GC/MS TUNING - INSTRUMENT PERFORMANCE

Yes



No



All tunes were compliant.

The bromofluorobenzene (BFB) standard performance results were reviewed and the following abundances were found to fall outside the specified criteria:

m/z	Required Abundance	Actual Abundance

Remarks:

VIII. INITIAL AND CONTINUING CALIBRATIONS

- Yes No
- ☒ ☐ The average relative response factors (RRF_{avg}) met validation criteria for all initial calibrations. **$RF > 0.05$**
- ☒ ☐ The percent relative standard deviation (%RSD) of the calibration or response factors (or correlation coefficients for regression analysis of calibration curves) met validation criteria for all initial calibrations. **$\%RPD \leq 15$, if 1st order fit then $r > 0.995$**
- ☒ ☐ Continuing calibrations were performed at the specified frequency. **1 per 12 hour sequence**
- ☒ ☐ The RRFs met validation criteria for all continuing calibrations. **$RRF > 0.05$**
- ☒ ☐ The percentage difference (%D) from the initial calibration met validation criteria for all continuing calibrations. **$\pm 25\%D$**

The following deficiencies were found:

Instr ID	Date/Time	Analyte	I / C	Calibration Deficiency	Affected Samples	Action
MSVOA4 MSVOA1 MSVOA3 MSVOA5 MSVOA2	10/09/01 10/25/01 10/30/01 10/19/01 10/29/01 11/01/01	All parameters are within control limits	I	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA3	11/05/01 at 10:17	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA4	10/25/01 at 09:08	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA1	10/25/01 at 13:22	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA4	10/26/01 at 09:54	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		
MSVOA1	11/02/01 at 12:00	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r _____		

Calibration Deficiencies Table, cont.

Instr ID	Date/ Time	Analyte	I / C	Calibration Deficiency	Affected Samples	Action
MSVOA1	11/05 /01 at 13:26	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency _____ <input type="checkbox"/> r _____		
MSVOA5	10/30 /01 at 10:17	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency _____ <input type="checkbox"/> r _____		
MSVOA2	11/05 /01 at 11:30	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency _____ <input type="checkbox"/> r _____		

Remarks:

IX. INTERNAL STANDARDS

Yes

☒

No

☐

All internal standard areas were within control limits.

All retention times for the internal standards were within control limits.

The following deficiencies were found:

Sample ID	Internal Standard	Sample IS Area	IS Area Limits		Sample IS RT	IS RT Limit	
			Upper	Lower		Upper	Lower

Internal Standard	Name
IS1(DFB)	1,4-Difluorobenzene
IS2CBZ)	Chlorobenzene-d5
IS3(DCB)	1,4-Dichlorobenzene-d4
IS4	Not applicable

Remarks:

X. QUANTITATION LIMIT RESULTS

Yes ☒ No ☐

No deficiencies were found.

☐ ☒ Reported quantitation limits (RQLs) were provided, but contract required quantitation limits (CRQLs) were not met.

The following deficiencies were found:

Sample ID	Compound(s)	RQL	CRQL	Action
F11298-06	Toluene – See Note 1			

Remarks:

Note 1: Sample run 1:1 and 1:50. The 1:50 resulted in values less than the RL (Toluene = 226J) lab reported value from 1:1 run, which exceeds the upper calibration range by ~ 150 percent (Toluene = 344 E). The higher concentration value was accepted because it is a more conservative estimate.

Analyses were performed using diluted sample aliquots to properly quantify target parameters present at elevated concentrations. Nominal quantification limits were not achieved in samples F11289-02, -03, -04, -05, -06; F11298-03, -04, -05; F11333-03, -04, -05, -06, -08

XI. SAMPLE RESULT VERIFICATION (LEVEL D ONLY)

Yes ☐ No ☒

Calculations for all positive hits were verified.

The following discrepancies were found:

Analyte	Reported Value	Recalculated Value	Samples

Remarks:

Calculations were spot-checked.

SDG F11289
PAH Analysis by HPLC

SDG F12178
Wet Chemistry by Various Methods

**QUALITY ASSURANCE REVIEW
DATA VALIDATION CHECKLIST
Wet Chemistry Data**

Project File(s) <u>F12178, F12221</u>	Sampling Date(s) <u>01/30/02, 02/05/02</u>
Laboratory <u>Accutest – New Jersey</u>	Receipt Date(s) <u>Same or Next Day</u>
SDG Number <u>F12178</u>	Matrix <input type="checkbox"/> Water <input type="checkbox"/> Air
	<input checked="" type="checkbox"/> Soil/Sediment

Sample Identification Numbers:

<u>F12178-02</u>	<u>F12178-07</u>	<u>F12221-04</u>	<u>F12221-09</u>	<u> </u>	<u> </u>
<u>F12178-03</u>	<u>F12178-08</u>	<u>F12221-05</u>	<u> </u>	<u> </u>	<u> </u>
<u>F12178-04</u>	<u>F12178-09</u>	<u>F12221-06</u>	<u> </u>	<u> </u>	<u> </u>
<u>F12178-05</u>	<u>F12221-02</u>	<u>F12221-07</u>	<u> </u>	<u> </u>	<u> </u>
<u>F12178-06</u>	<u>F12221-03</u>	<u>F12221-08</u>	<u> </u>	<u> </u>	<u> </u>

The general criteria used to determine the data performance and quality assurance were based on:

- ☐ Hazardous Waste Remedial Actions Program (HAZWRAP) Requirements for Quality Control of Analytical Data (HAZWRAP DOE/HWP-65/R2)
- ☐ USEPA SW846 (SW-846) Methods
- ☐ Air Force Center for Environmental Excellence (AFCEE) QAPP Version 3.0
- ☒ Other:

<u>Parameter</u>	<u>Method</u>	<u>Parameter</u>	<u>Method</u>	<u>Parameter</u>	<u>Method</u>
TOC	Corp Eng 81M				
Solids	EPA 160.3	<i>Not Reviewed</i>	<i>ame</i>		

The following parameters were examined: sample preservation and holding time, matrix spike / matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, method blank results, field and/or rinsate blank results, field and laboratory duplicate results, initial and continuing calibrations, reporting limits and sample result verification.

Reviewed by: Chris Ohl Date: 6/28/02

QA Concurrence by: Date:

Validation Summary

No deficiencies noted

[Signature]

Qualifiers:

U - Not detected.

J - Approximate data due to other quality control criteria.

R - Unusable.

UJ - Not detected, limit of detection approximate.

I. HOLDING TIME

Yes

No



All samples were handled and preserved according to requirements.



All samples were extracted and analyzed within holding time criteria.

The following deficiencies were found:

Sample I.D.	Matrix	Preservation	Collection Date	Extraction Date	Analysis Date	Qualifier Flag

Remarks:

II. CALIBRATIONS (Instrumental Methods)

- | Yes | No | |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The initial calibration consisted of 6-point curve bracketing the expected sample concentrations plus a blank. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The correlation coefficient for each analyte in multipoint calibrations was ≥ 0.995 . |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Continuing calibration verifications (CCVs) were performed at the method-specified frequency. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The % Recovery for each of the CCVs (bracketing samples) was within control limits (90 - 110%). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | No deficiencies were noted. |

The following deficiencies were found:

Date/ Time	Analyte	I / C	Corr Coeff	%R	Affected Samples	Action

Remarks:

III. BLANKS (Method blanks, calibration blanks, field blanks, etc.)**Yes**☒**No**☐

At least one preparation blank was prepared with each batch of samples.

☒☐

Blanks were reported at the RL for all non-detects.

☐☒

Field QC samples were associated with this SDG.

☒☐

No deficiencies were noted.

Field QC associated with this SDG were:

Field Blanks	Equipment Rinsate Blanks

The following contaminants were detected in blanks associated with samples in this SDG:

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples
GP14847	Soil	TOC less than RL			
GP14857	Soil	TOC less than RL			

Remarks:

IV. LABORATORY CONTROL SAMPLE

Yes



No



At least one LCS analysis was performed per batch of samples.



LCS recoveries were within criteria (_____ % for water, or **80 - 120%** for soil).



No deficiencies were noted.

The following compounds fell outside the specified QC limits:

LCS ID	Matrix	Compound	%R	Control Limits	Qualifier Flags

LCS Summary: Unacceptable recoveries for each LCS analysis in the SDG.

LCS ID	GP14847		Matrix:		Soil	LCS ID	GP14857		Matrix:		Soil
Spike Recovery	0	Out of	1	Outside Limits	Spike Recovery	0	Out of	1	Outside Limits		

Remarks:

V. MATRIX SPIKE (MS) ANALYSIS

Yes

☒

No

☐

Matrix spike analysis was requested for this SDG.

☒
☐

MS analysis was performed on sample F12178-05 and F12221-02 found in SDG# F12178 and F12221.

☒
☐

All recoveries and relative percent differences (RPDs) were within control limits.

The following deficiencies were found:

Type Analysis	Analyte	MS Recovery	MSD Recovery	MS/MSD QC Limits	RPD	RPD Limit

MS/MSD Summary: Unacceptable recoveries per the total number of matrix spike recoveries in the fraction.

Sample ID				Sample ID			
F12178-05				F12221-02			
SDG	F12178	Matrix	Soil	SDG	F12221	Matrix	Soil
Spike Rec.	0	out of	1	Spike Rec.	0	out of	1
			outside limits				outside limits

Remarks:

Note: No action will be taken based on MS/MSD data alone. Sample results may be affected by either a positive or negative bias due to deficient recoveries.

VI. DUPLICATE ANALYSES

- | | | |
|-------------------------------------|-------------------------------------|--|
| Yes | No | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Laboratory duplicate analyses were performed with each sample batch. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | RPDs for the laboratory duplicate analyses were within criteria guidelines (< _____% for water, or <30% for soil). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Field duplicates were associated with this QC batch. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Qualification for field duplicates was attempted. |

Field Sample/Duplicate ID: F12221-07/-09 Matrix: Soil

Laboratory Sample/Duplicate ID: F12178-05 and F12221-02 Matrix: Soil

The relative percent difference (RPD) is calculated for each positive result identified in either the sample or (field) duplicate. There are no specific review criteria for field duplicate analysis comparability.

RPD is calculated using the following equation:
$$RPD: \frac{|A-B|}{(A+B)/2} \times 100$$

A = Sample Result
B = Duplicate Sample Result

The following deficiencies were found:

Type Duplicate Analysis		Compound	Sample Result	Duplicate Result	RPD	Action
Field	Lab					

Remarks:

Laboratory duplicate for F12221-02 was less than RL. Field duplicates were less than RL.

VII. REPORTING LIMITS

Yes



No



Reporting limits (RLs) met client criteria for all analytes.

List any analytes for which the RL was not lower than the client or QAPP-specified RL (CRRL).

Analyte	Reported RL	CRRL	Action

Remarks:

VIII. SAMPLE RESULT VERIFICATION (Full Raw Data Package Validation Only)

Yes **No**
☐ ☒ Calculations for all positive hits were verified.

The following discrepancies were found:

[illegible]

Remarks:

Calculations were spot-checked.

SDG F13055
Volatiles Analysis by GC\MS

**QUALITY ASSURANCE REVIEW
DATA VALIDATION CHECKLIST
Volatile Organic Analytes by GC/MS**

Project File(s)	F13055, F13066	Sampling Date(s)	4/30/02, 5/1/02
Laboratory	Accutest – Orlando FL	Receipt Date(s)	Same or Next Day
SDG Number	F13055	Matrix	<input type="checkbox"/> Water <input type="checkbox"/> Air <input checked="" type="checkbox"/> Soil/Sediment

Sample Identification Numbers:

F13055-02	F13055-09	F13055-14	F13066-02		
F13055-03	F13055-10	F13055-15	F13066-03		
F13055-04	F13055-11	F13055-16	F13066-04		
F13055-05	F13055-12	F13055-17			
F13055-06	F13055-13	F13066-02			

The general criteria used to determine the data performance and quality assurance were based on:

- ☐ Hazardous Waste Remedial Actions Program (HAZWRAP) Requirements for Quality Control of Analytical Data (HAZWRAP DOE/HWP-65/R2)
- ☐ USEPA Contract Laboratory Program (CLP) National Laboratory Functional Guidelines for Organic Data Review (EPA-540/R-94/012, February 1993)
- ☒ USEPA SW846 (SW-846) Methods (8260)
- ☐ USEPA Drinking Water (DW) Methods (524.2, 624, 1624)
- ☐ Air Force Center for Environmental Excellence (AFCEE) QAPP Version 3.0
- ☒ Other:

Laboratory established accuracy and precision control limits.

The following parameters were examined: holding time and sample preservation, surrogate spike results, matrix spike / matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, method blank results, field, trip, and/or rinsate blank results, field duplicate results, instrument tuning and performance, initial and continuing calibrations, internal standard performance, and quantitation limits.

Reviewed by: 

Date: 6/26/02

QA Concurrence by: _____

Date: _____

Validation Summary

Poor field precision between duplicate samples for ethylbenzene and xylene. The results of the primary sample and its duplicate are qualified as estimated and flagged "J."

Validation Summary (cont.)

UJ - Not detected, limit of detection approximate.

All samples were extracted and analyzed within holding time criteria.

The following deficiencies were found:

[illegible]

Remarks:

II. SURROGATE SPIKE RECOVERIES

Yes

☐
☐

No

☐
☐

No deficiencies were found.

At least one of the deficient recoveries was outside control limits due to dilutions.

Sample ID	Surrogate 1	Surrogate 2	Surrogate 3	Surrogate 4

Surrogate	Name	QC Limits	
		Water	Soil
SMC1 (DFM)	Dibromofluoromethane		75 – 125
SMC2 (TOL)	Toluene-d8		75 – 125
SMC3 (BFB)	p-Bromofluorobenzene		72 – 137
SMC4 (DCB)	1,2-dichlorobenzene-d4		68 – 125

Remarks:

III. MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS

Yes ☒ No ☐ Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis was requested for this SDG.
 Yes ☒ No ☐ MS/MSD analysis was performed on sample **F13055-06 and -11** found in SDG# **F13055**.
 Yes ☒ No ☐ All recoveries and relative percent differences (RPDs) were within control limits.

The following deficiencies were found:

Matrix	Analyte	MS Recovery	MSD Recovery	MS/MSD QC Limits	RPD	RPD Limit

MS/MSD Summary: Unacceptable recoveries per the total number of matrix spike recoveries in the fraction.
See Form III in data package.

Sample ID				F13055-11				Sample ID				F13055-06			
SDG		F13055		Matrix	Soil			SDG		F13055		Matrix	Soil		
RPD		0	out of	4	outside limits			RPD		0	out of	4	Outside limits		
Spike Rec.		0	out of	8	outside limits			Spike Rec.		0	out of	8	outside limits		

Remarks:

Note: No action will be taken based on MS/MSD data alone. Sample results may be affected by either a positive or negative bias due to deficient recoveries.

IV. LABORATORY CONTROL SAMPLE

Yes

No



At least one LCS analysis was performed per batch of samples.



LCS recoveries were within criteria.

The following compounds fell outside the specified QC limits:

LCS ID	Matrix	Compound	%R	Control Limits	Qualifier Flags

LCS Summary: Unacceptable recoveries for each LCS analysis in the SDG.

LCS ID VH546-BS	Matrix: Soil	LCS ID VH547-BS	Matrix: Soil
Spike Recovery 0	Out of 4 Outside Limits	Spike Recovery 0	Out of 1 Outside Limits

LCS ID VH545-BS	Matrix: Soil	LCS ID _____	Matrix: _____
Spike Recovery 0	Out of 4 Outside Limits	Spike Recovery _____	Out of _____ Outside Limits

LCS ID _____	Matrix: _____	LCS ID _____	Matrix: _____
Spike Recovery _____	Out of _____ Outside Limits	Spike Recovery _____	Out of _____ Outside Limits

Remarks:

V. BLANK ANALYSIS RESULTS

A. Laboratory Blanks (Deficiencies for method blanks, instrument blanks, etc.):

[illegible]

Remarks:

B. Field QC (Blanks):

Yes

No



Field QC samples were associated with this SDG.

Field QC associated with this SDG were:

Trip Blanks	Equipment Rinsate Blanks	
F13055-01 (ran by SW8021)	F13055-07 (ran by SW8021)	F13066-05 (ran by SW8021)
F13055-19 (ran by SW8021)	F13055-08 (ran by SW8021)	
F13066-06 (ran by SW8021)	F13055-18 (ran by SW8021)	

The following contaminants were detected in the field QC:

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples

Remarks:

Field equipment rinsate and trip blank samples were absent target parameters at concentrations greater than laboratory report limits.

VI. FIELD PRECISION RESULTS

Yes	No	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Field duplicate data were included in this data package.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Qualification of field duplicate data was attempted.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Relative percent differences (RPDs) between duplicate sample results was less than 25% for liquid (30% for solid samples) when both sample values were $\geq 5 \times$ the RL.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	When one or both results were $< 5 \times$ the RL, RPDs between duplicate sample results were less than 1 x RL for water samples (2 x RL for soil samples).

Note: In the absence of project specified criteria the following guidelines are recommended:

- ☐ ~~For sample results $> 5 \times$ the RL, the RPD between field duplicate samples was $< 40\%$ for water samples (70% for soil samples).~~
- ☐ ~~For sample results $< 5 \times$ the RL, the RPD between field duplicate samples was less than the RL for water samples (less than $2 \times$ the RL for soil samples).~~

Field Sample/Duplicate ID: F13055-14/-17 **Matrix:** Soil

The relative percent difference (RPD) is calculated for each positive result identified in either the sample or field duplicate.

RPD is calculated using the following equation:

$$\text{RPD} = \frac{|A-B|}{(A+B)/2} \times 100$$

A = Sample Result

B = Duplicate Sample Result

Field Precision Evaluation Deficiency Worksheet:

Analyte	RL	5 x RL	Sample Result	Duplicate Result	RPD	Action
Toluene	270	1350	187	ND	NC	< 5X RL
Ethylbenzene	270	1350	5000	62300	170%	J - Detects
Xylene	820	4100	7640	53600	150%	J - Detects

Remarks:

Poor field precision between duplicate samples for ethylbenzene and xylene. The results of the primary sample and its duplicate are qualified as estimated and flagged "J."

VII. GC/MS TUNING - INSTRUMENT PERFORMANCE

Yes No



All tunes were compliant.

The bromofluorobenzene (BFB) standard performance results were reviewed and the following abundances were found to fall outside the specified criteria:

m/z	Required Abundance	Actual Abundance

Remarks:

VIII. INITIAL AND CONTINUING CALIBRATIONS

- Yes ☒ No ☐ The average relative response factors (RRF_m) met validation criteria for all initial calibrations. **RF > 0.05**
- ☒ ☐ The percent relative standard deviation (%RSD) of the calibration or response factors (or correlation coefficients for regression analysis of calibration curves) met validation criteria for all initial calibrations. **%RPD ≤ 15, if 1st order fit then r > 0.995**
- ☒ ☐ Continuing calibrations were performed at the specified frequency. **1 per 12 hour sequence**
- ☒ ☐ The RRFs met validation criteria for all continuing calibrations. **RRF > 0.05**
- ☒ ☐ The percentage difference (%D) from the initial calibration met validation criteria for all continuing calibrations. **±25%D**

The following deficiencies were found:

Instr ID	Date/Time	Analyte	I / C	Calibration Deficiency	Affected Samples	Action
MSVOA3	05/03/02	All parameters are within control limits	I	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r		
MSVOA3	05/06/02 at 11:02	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r		
MSVOA3	05/07/02 at 10:55	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r		
MSVOA3	05/08/02 at 14:20	All parameters are within control limits	C	<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r		
				<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r		
				<input type="checkbox"/> RRF _____ <input type="checkbox"/> %RSD _____ % <input type="checkbox"/> %D _____ % <input type="checkbox"/> Frequency <input type="checkbox"/> r		

IX. INTERNAL STANDARDS

Yes

No



All internal standard areas were within control limits.



All retention times for the internal standards were within control limits.

The following deficiencies were found:

Sample ID	Internal Standard	Sample IS Area	IS Area Limits		Sample IS RT	IS RT Limit	
			Upper	Lower		Upper	Lower

Internal Standard	Name
IS1(DFB)	1,4-Difluorobenzene
IS2CBZ)	Chlorobenzene-d5
IS3(DCB)	1,4-Dichlorobenzene-d4
IS4	Not applicable

Remarks:

X. QUANTITATION LIMIT RESULTS

Yes

☒

No

☐

No deficiencies were found.

☐☒

Reported quantitation limits (RQLs) were provided, but contract required quantitation limits (CRQLs) were not met.

The following deficiencies were found:

Sample ID	Compound(s)	RQL	CRQL	Action

Remarks:

Analyses were performed using diluted sample aliquots to properly quantify target parameters present at elevated concentrations. Nominal quantification limits were not achieved in samples F13055-02, -03, -04, -05, -09, -10, -11, -13, -14, -15, -16, -17; F13066-02, -04.

XI. SAMPLE RESULT VERIFICATION (LEVEL D ONLY)

Yes

☐

No

☒

Calculations for all positive hits were verified.

The following discrepancies were found:

Analyte	Reported Value	Recalculated Value	Samples

Remarks:

Calculations were spot-checked.

SDG F13055
PAH Analysis by HPLC

**QUALITY ASSURANCE REVIEW
DATA VALIDATION CHECKLIST
Polynuclear Aromatic Hydrocarbons (PAH) by HPLC**

Project File(s) F13055, F13066, 2204044 Sampling Date(s) 4/30/02, 5/1/02, 05/10/02

Laboratory Accutest – Orlando FL (F-series) Receipt Date(s) Same or Next Day
PEL Laboratory – Tampa FL
(220404)

SDG Number F13055 Matrix ☐ Water ☐ Air
☒ Soil/Sediment

Sample Identification Numbers:

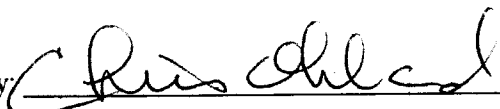
<u>F13055-01^{EB}</u>	<u>F13055-06</u>	<u>F13055-11</u>	<u>F13055-16</u>	<u>F13066-03</u>	<u>220404403</u>
<u>F13055-02</u>	<u>F13055-07^{EB}</u>	<u>F13055-12</u>	<u>F13055-17</u>	<u>F13066-04</u>	
<u>F13055-03</u>	<u>F13055-08^{EB}</u>	<u>F13055-13</u>	<u>F13055-18^{EB}</u>	<u>F13066-05^{EB}</u>	
<u>F13055-04</u>	<u>F13055-09</u>	<u>F13055-14</u>	<u>F13066-01^{EB}</u>	<u>220404401^{EB}</u>	<i>over</i>
<u>F13055-05</u>	<u>F13055-10</u>	<u>F13055-15</u>	<u>F13066-02</u>	<u>220404402</u>	

The general criteria used to determine the data performance and quality assurance were based on:

- ☐ Hazardous Waste Remedial Actions Program (HAZWRAP) Requirements for Quality Control of Analytical Data (HAZWRAP DOE/HWP-65/R2)
- ☐ USEPA Contract Laboratory Program (CLP) National Laboratory Functional Guidelines for Organic Data Review (EPA-540/R-94/012, February 1993)
- ☒ USEPA SW846 (SW-846) Methods (8310)
- ☐ USEPA Drinking Water (DW) Methods (550.1, 610)
- ☐ Air Force Center for Environmental Excellence (AFCEE) QAPP Version 3.0
- ☒ Other:

Laboratory established accuracy and precision control limits.

The following parameters were examined: holding time and sample preservation, surrogate spike results, matrix spike / matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, method blank results, field blank results, field duplicate results, initial and continuing calibrations, internal standards, compound identification, and detection limits.

Reviewed by: 

Date: 6/27/02

QA Concurrence by: _____

Date: _____

Validation Summary

Second column confirmation was not performed as specified in the laboratory statement of work. Instead, the laboratory performed confirmation by spectrum match using a diode array detector at two different wavelengths (254 and 270 nm for Accutest work. Wavelengths not documented for PEL)

Quantifications were calculated from the primary detector response, unless in the analyst judgement the measurement was biased. Higher concentrations may be measured and reported from the secondary detector response if a more conservative concentration is required.

The laboratory sample receipt form indicates that sample 011-04-posteb-w-01-03 was listed twice and that the bottles were labeled at 16:30 and 17:35. There is no notice that CCI was notified and that the discrepancy was resolved.

Phenanthrene was detected in an aqueous method blank. Action levels were determined using the 5X Rule. Sample results less than the action levels are qualified as non-detected and flagged "U." None of the associated samples needed qualification.

MS/MSD analyses performed on PEL sample ID 2204044-02 found in SDG# 2204044 were above the upper recovery control limits. No action was taken to qualify the sample results because acenaphthene was not detected in any of the associated samples.

For sample F13055-05 the 2-methynaphthalene report limit is elevated due to matrix interference.

The laboratory report limits provided by Accutest and PEL are not matched. Lower analyte sensitivities are reported by PEL.

Qualifiers:

U - Not detected.

R - Unusable.

J - Approximate data due to other quality control criteria.

UJ - Not detected, limit of detection approximate.

I. HOLDING TIME AND SAMPLE PRESERVATION**Yes****No**

All samples were handled and preserved according to requirements.



All samples were extracted and analyzed within holding time criteria.

The following deficiencies were found:

Sample ID	Matrix	Preservation	Collection Date	Extraction Date	Analysis Date	Qualifier Flag

Remarks:

II. SURROGATE SPIKE RECOVERIES

Yes



No



All recoveries were within control limits.



At least one of the deficient recoveries was outside control limits due to dilutions.



No deficiencies were found.

The following deficiencies were found:

Sample ID	% Recovery			
	Surrogate 1	Surrogate 2	Surrogate 3	Surrogate 4

Surrogate	Name	QC Limits	
		Water	Soil
<u>Accutest Laboratory</u>			
Surrogate 1	o-terphenyl	33 – 141	37 – 158
Surrogate 2	p-terphenyl	31 – 122	59 – 149
Surrogate 3	Not applicable		
Surrogate 4	Not applicable		
<u>PEL Laboratory</u>			
Surrogate 1	p-terphenyl-d14	39 107	17 – 119

Remarks:

III. MATRIX SPIKE/MATRIX SPIKE DUPLICATE SAMPLES

Yes ☒ No ☐ Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis was requested for this SDG.
 Yes ☒ No ☐ MS/MSD analysis was performed on sample **F13055-11 and 2204044-02** found in
 SDG# **F13055 and 2204044.**
 Yes ☐ No ☒ All recoveries and relative percent differences (RPDs) were within control limits.

The following deficiencies were found:

Matrix	Analyte	MS Recovery	MSD Recovery	MS/MSD QC Limits	RPD	RPD Limit
2204044-02						
Soil	Acenaphthene	267	270	43 – 89	--	--

MS/MSD Summary: Unacceptable recoveries per the total number of matrix spike recoveries in the fraction.
See Form III in data package.

Sample ID				Sample ID			
F13055-11				2204044-02			
SDG	F13055	Matrix	Soil	SDG	2204044	Matrix	Soil
RPD	0	out of	18	RPD	0	out of	18
Spike Rec.	0	out of	36	Spike Rec.	2	out of	36

Remarks:

Acenaphthene was not detected in any of the associated samples.

Note: No action will be taken based on MS/MSD data alone. Sample results may be affected by either a positive or negative bias due to deficient recoveries.

IV. LABORATORY CONTROL SAMPLE

Yes

☒

No

☐

At least one LCS analysis was performed per batch of samples.

LCS recoveries were within criteria.

The following compounds fell outside the specified QC limits:

LCS ID	Matrix	Compound	%R	Control Limits	Qualifier Flags

LCS Summary: Unacceptable recoveries for each LCS analysis in the SDG.

LCS ID	OP5089-BS		Matrix:	Water	LCS ID	OP5087-BS		Matrix:	Soil
Spike Recovery	0	Out of	18	Outside Limits	Spike Recovery	0	Out of	18	Outside Limits

LCS ID	514LCS		Matrix:	Water	LCS ID	523LCS		Matrix:	Soil
Spike Recovery	0	Out of	18	Outside Limits	Spike Recovery	0	Out of	18	Outside Limits

Remarks:

V. BLANK ANALYSIS RESULTS

A. Laboratory Blanks (Deficiencies for method blanks, instrument blanks, etc.)

[illegible]

Remarks:

Remarks.

All method blank analyses were absent target parameters at concentrations greater than the RL.

B. Field QC (Blanks):

Yes

No



Field QC samples were associated with this SDG.

Field QC associated with this SDG were:

Field Blanks		Equipment Rinsates	
		F13055-01	F13055-18
		F13055-07	F13066-01
		F13055-08	F13066-05

The following contaminants were detected in the field QC:

2204044-01 ✓ *Chino*

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples

Remarks:

All field equipment blank analyses were absent target parameters at concentrations greater than the RL.

VI. FIELD PRECISION RESULTS

- | | | |
|-------------------------------------|-------------------------------------|--|
| Yes | No | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Field duplicate data were included in this data package. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Qualification of field duplicate data was attempted. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Relative percent differences (RPDs) between duplicate sample results was less than 25% for liquid (30% for solid samples) when both sample values were $\geq 5 \times$ the RL. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | When one or both results were $< 5 \times$ the RL, RPDs between duplicate sample results were less than 1 x RL for water samples (2 x RL for soil samples). |

Note: In the absence of project specified criteria the following guidelines are recommended:

- ☐ ~~For sample results $> 5 \times$ the RL, the RPD between field duplicate samples was $< 40\%$ for water samples (70% for soil samples).~~
- ☐ ~~For sample results $< 5 \times$ the RL, the RPD between field duplicate samples was less than the RL for water samples (less than $2 \times$ the RL for soil samples).~~

Field Sample/Duplicate ID: F13055-14/-17 Matrix: Soil

The relative percent difference (RPD) is calculated for each positive result identified in either the sample or field duplicate.

RPD is calculated using the following equation:

$$\text{RPD} = \frac{|A-B|}{(A+B)/2} \times 100$$

A = Sample Result

B = Duplicate Sample Result

Field Precision Evaluation Deficiency Worksheet:

Analyte	RL	5 x RL	Sample Result	Duplicate Result	RPD	Action

Remarks:

The primary sample and its duplicate exhibit good precision.

VII. INITIAL AND CONTINUING CALIBRATIONS

- | | | |
|-------------------------------------|--------------------------|--|
| Yes | No | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The initial calibration has a minimum of <u>5</u> standards. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Percent relative standard deviation (%RSD) for all compounds was $\leq 15\%$ for all calibration factors in the initial calibration. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | For first-order calibration curves, the coefficient of the determination (COD) was ≥ 0.995 for all compounds in the initial calibration. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The calibration verification standard (midpoint concentration) was analyzed at the beginning of every 12-hour analytical shift and at the end of the analytical sequence to bracket the sample analyses. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Calibration verification standards (midpoint concentration) were analyzed every <u>10</u> samples. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | For the calibration verification(s), the percent difference (%D) was within $\pm 15\%$ of the response obtained during the initial calibration for all compounds. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Standard retention times were within control windows. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | The analytical sequence was followed. |

The following deficiencies were found:

Inst ID	Date/Time	Analyte	I / C	% RSD	%D	Affected Samples	Action
GCEE	04/22/02	Within control limits	I				
GCEE	05/07/02 at 14:46, 18:21, 21:31	Within control limits	C				
GCEE	05/13/02 at 16:11, 18:58, 22:08	Within control limits	C				
GCEE	05/14/02 at 01:19, 17:07, 21:28	Within control limits	C				
GCEE	05/08/02 at 00:41	Within control limits	C				
SLC02	04/22/02	Within control limits	I				
SLC02	05/14/02 at 15:40, 23:38	Within control limits	C				
SLC02	05/14/02 at 06:33, 10:24	Within control limits	C				
SLC02	05/23/02 at 19:15	Within control limits	C				
SLC02	05/24/02 at 12:10	Within control limits	C				
SLC02	05/16/02 at 11:50	Within control limits	C				

Comments:

Some parameters may have been fit using a quadratic curve.

INTERNAL STANDARDS

Yes

No

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An internal standard calibration was performed.

All retention times for the internal standards were within control limits.

All internal standard areas were within control limits.

No deficiencies were found.

The following deficiencies were found:

Sample ID	Internal	Sample	IS Area Limits		Sample	Ret. Time Limit	
			Upper	Lower		Upper	Lower

Internal Standard	Name

Remarks:

VIII. REPORTING LIMIT RESULTS

Yes

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No

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No deficiencies were found.

Reporting limits (RL) were provided, but one or more contract or QAPP-required reporting limits (CRRLs) were not met.

The following deficiencies were found:

Sample ID	Compound	RL	CRRL	Action
F13055-05	2-methylnaphthalene	740	370	None

Remarks:

For sample F13055-05 the 2-methynaphthalene report limit is elevated due to a matrix interference.

IX. COMPOUND IDENTIFICATION

Yes

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No

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All positive detects were verified using a confirmation column.

Retention times of reported compounds were within the calculated window for both the primary and confirmatory chromatographic columns.

Confirmation analysis was performed by GC/MS.

The % Difference (%D) between the first and second column results for all compounds was within guidelines.

Raw data were included with the analytical report. Chromatograms were evaluated.

The following deficiencies were found:

Sample ID	Compound	RT 1 st Column	Result 1 st Column	RT 2 nd Column	Result 2 nd Column	% D	Action

Remarks:

Second column confirmation was not performed as specified in the laboratory statement of work. Instead, the laboratory performed confirmation by spectrum match using a diode array detector at two different wavelengths (254 and 270 nm for Accutest work. Wavelengths not documented for PEL).

SDG F13055
TPH by GC/FID

**QUALITY ASSURANCE REVIEW
DATA VALIDATION CHECKLIST
Total Petroleum Hydrocarbons (TPH) by GC**

Project File(s)	F13055, F13066	Sampling Date(s)	4/30/02, 5/1/02
Laboratory	Accutest – Orlando FL	Receipt Date(s)	Same or Next Day
SDG Number	F13055	Matrix	<input type="checkbox"/> Water <input type="checkbox"/> Air <input checked="" type="checkbox"/> Soil/Sediment

Sample Identification Numbers:

F13055-01 ^{EB}	F13055-06	F13055-11	F13055-16	F13066-03	
F13055-02	F13055-07 ^{EB}	F13055-12	F13055-17	F13066-04	
F13055-03	F13055-08 ^{EB}	F13055-13	F13055-18 ^{EB}	F13066-05 ^{EB}	
F13055-04	F13055-09	F13055-14	F13066-01 ^{EB}		
F13055-05	F13055-10	F13055-15	F13066-02		

The general criteria used to determine the data performance and quality assurance were based on:

- ☐ Hazardous Waste Remedial Actions Program (HAZWRAP) Requirements for Quality Control of Analytical Data (HAZWRAP DOE/HWP-65/R2)
- ☐ USEPA Contract Laboratory Program (CLP) National Laboratory Functional Guidelines for Organic Data Review (EPA-540/R-94/012, February 1993)
- ☒ USEPA SW846 (SW-846) Methods – **Florida PRO (SW8015)**
- ☐ USEPA Drinking Water (DW) Methods
- ☐ Air Force Center for Environmental Excellence (AFCEE) QAPP Version 3.0
- ☒ Other:

Laboratory established accuracy and precision control limits.

The following parameters were examined: sample preservation and holding time, surrogate spike results, matrix spike / matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, method blank results, field and equipment rinsate blank results, field duplicate, calibrations, and detection limits.

Reviewed by: Chris Ohland Date: 6/28/02

QA Concurrence by: _____ Date: _____

Validation Summary

Several of the gas chromatograms indicate the potential presence of two types of hydrocarbon products. Both an early and late eluting profile is present in the analysis. Some of the TPH elutes earlier than the starting time for integrating TPH.

R - Unusable.

UJ - Not detected, limit of detection approximate.

No

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All samples were extracted and analyzed within holding time criteria.

[illegible]

SURROGATE SPIKE RECOVERIES

Yes

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No

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No deficiencies were found.

At least one of the deficient recoveries was outside control limits due to dilutions.

The following deficiencies were found:

Sample ID	Purgable		Extractable	
	Surrogate 1	Surrogate 2	Surrogate 3	Surrogate 4

Surrogate	Name	QC Limits	
		Water	Soil
Surrogate 1		--	--
Surrogate 2		--	--
Surrogate 3	o-terphenyl	55 – 130	66 – 130
Surrogate 4			

Remarks:

II. MATRIX SPIKE/MATRIX SPIKE DUPLICATE ANALYSIS

Yes

No

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Matrix Spike/Matrix Spike Duplicate (MS/MSD) analysis was requested for this SDG.

MS/MSD analysis was performed on sample **F13055-11** found in SDG# **F13055**.

All recoveries and relative percent differences (RPDs) were within control limits.

The following deficiencies were found:

Analysis		Analyte	MS Recovery	MSD Recovery	MS/MSD QC Limits	% RPD	% RPD
Purge	Extract.						

MS/MSD Summary: Unacceptable recoveries per the total number of matrix spike recoveries in the fraction.

Sample ID		F13055-11				Sample ID			
SDG	F13055	Matrix		Soil		SDG			Matrix
RPD	0	out of	1	outside limits		RPD		out of	Outside limits
Spike Rec.	2	out of	2	outside limits		Spike Rec.		out of	outside limits

Remarks:

Note: No action will be taken based on MS/MSD data alone. Sample results may be affected by either a positive or negative bias due to deficient recoveries.

III. FIELD PRECISION RESULTS

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Field duplicate data were included in this data package. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Qualification of field duplicate data was attempted. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Relative percent differences (RPDs) between duplicate sample results was less than 25% for liquid (30% for solid samples) when both sample values were $\geq 5 \times$ the RL. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | When one or both results were $< 5 \times$ the RL, RPDs between duplicate sample results were less than $1 \times$ RL for water samples ($2 \times$ RL for soil samples). |

Note: In the absence of project specified criteria the following guidelines are recommended:

- ☐ ~~For sample results $> 5 \times$ the RL, the RPD between field duplicate samples was $< 40\%$ for water samples (70% for soil samples).~~
- ☐ ~~For sample results $< 5 \times$ the RL, the RPD between field duplicate samples was less than the RL for water samples (less than $2 \times$ the RL for soil samples).~~

Field Sample/Duplicate ID: F13055-14/-17 Matrix: Soil

The relative percent difference (RPD) is calculated for each positive result identified in either the sample or field duplicate.

RPD is calculated using the following equation:

$$\text{RPD} = \frac{|A-B|}{(A+B)/2} \times 100$$

A = Sample Result

B = Duplicate Sample Result

Field Precision Evaluation Deficiency Worksheet:

Analyte	RL	5 x RL	Sample Result	Duplicate Result	RPD	Action

Remarks:

The primary sample and its duplicate exhibit good precision

IV. LABORATORY CONTROL SAMPLE

Yes

No

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At least one LCS analysis was performed per batch of samples.

LCS recoveries were within criteria.

The following compounds fell outside the specified QC limits:

LCS	Matrix	Compound	Percent Recovery	Control Limits	Qualifier Flags

LCS Summary: Unacceptable recoveries for each LCS analysis in the SDG.

LCS ID	OP5088-BS		Matrix:		Water	LCS ID	OP5090-BS		Matrix:		Soil
Spike Recovery	0	Out of	1	Outside Limits	Spike Recovery	0	Out of	1	Outside Limits		

Remarks:

V. BLANK ANALYSIS RESULTS

A. Laboratory Blanks (Deficiencies for method blanks, instrument blanks, etc.):

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples
OP5088-MB	Soil	All target parameters are less than the RL			
OP5090-MB	Water	All target parameters are less than the RL			

Remarks:

All method blank analyses were absent target parameters at concentrations greater than the RL.

B. Field QC (Blanks):

Yes



No



Field QC samples were associated with this SDG.

Field QC associated with this SDG were:

Field Blanks		Equipment Rinsates	
		F13055-01	F13055-18
		F13055-07	F13066-01
		F13055-08	F13066-05

The following contaminants were detected in the field QC:

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples

Remarks:

All field equipment blanks were absent target parameters at concentrations greater than the RL.

VI. INITIAL/CONTINUING CALIBRATIONS

Yes



No



The initial calibration consisted of 5-point curve bracketing the expected sample concentrations.



The correlation coefficient of the initial calibration curve was ≥ 0.995 ; or the %RSD of the calibration response factors was $\leq 20\%$.



Continuing calibration verification (CCV) was performed at the frequency specified by the method and all analyte retention times were within the retention time windows defined during the initial calibration.



The %Difference was within $\pm 25\%$ for all CCVs.

The following deficiencies were found:

Inst ID	Date/Time	Analyte	I / C	% RSD	%D	Affected Samples	Action
FID 2	04/22/02	Within control limits	I				
FID 2	05/07/02 at 11:50, 12:24, 19:04	Within control limits	C				
FID 2	05/08/02 at 01:11, 07:14, 12:48, 13:22	Within control limits	C				

Remarks: _____

VII. REPORTING LIMIT RESULTS

Yes



No

11

No deficiencies were found.

Reporting limits (RL) were provided, but one or more contract or QAPP-required reporting limits (CRRLs) were not met.

The following deficiencies were found:

[illegible]

Remarks:

VIII. COMPOUND IDENTIFICATION

Yes

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All positive detects were verified using a confirmation column.

Retention times of reported compounds were within the calculated window for both the primary and confirmatory chromatographic columns.

Confirmation analysis was performed by GC/MS.

The % Difference (%D) between the first and second column results for all compounds was within guidelines.

Raw data were included with the analytical report. Chromatograms were evaluated.

The following deficiencies were found:

[illegible]

Remarks:

Several of the gas chromatograms indicate the potential presence of two types of hydrocarbon products. Both an early and late eluting profile is present in the analysis. Some of the TPH elutes earlier than the starting time for integrating TPH.

IX. SYSTEM PERFORMANCE

Evaluate the system performance based on the following parameters:

Yes	No	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Abrupt baseline shift.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	High background or retention time shifts.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Baseline rise at high temperature.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Extraneous peaks.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Loss of peak resolution.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Peak tailing or splitting.

Remarks:

SDG F13055
Wet Chemistry by Various Methods

QUALITY ASSURANCE REVIEW DATA VALIDATION CHECKLIST

Wet Chemistry Data

Project File(s)	F13055, F13066	Sampling Date(s)	4/30/02, 5/1/02
Laboratory	Accutest – New Jersey	Receipt Date(s)	Same or Next Day
SDG Number	F13055	Matrix	<input type="checkbox"/> Water <input type="checkbox"/> Air <input checked="" type="checkbox"/> Soil/Sediment

Sample Identification Numbers:

F13055-02	F13055-09	F13055-14	F13066-03		
F13055-03	F13055-10	F13055-15	F13066-04		
F13055-04	F13055-11	F13055-16			
F13055-05	F13055-12	F13055-17			
F13055-06	F13055-13	F13066-02			

The general criteria used to determine the data performance and quality assurance were based on:

- ☐ Hazardous Waste Remedial Actions Program (HAZWRAP) Requirements for Quality Control of Analytical Data (HAZWRAP DOE/HWP-65/R2)
- ☐ USEPA SW846 (SW-846) Methods
- ☐ Air Force Center for Environmental Excellence (AFCEE) QAPP Version 3.0
- ☒ Other:

<u>Parameter</u>	<u>Method</u>	<u>Parameter</u>	<u>Method</u>	<u>Parameter</u>	<u>Method</u>
TOC	Corp Eng 81M				

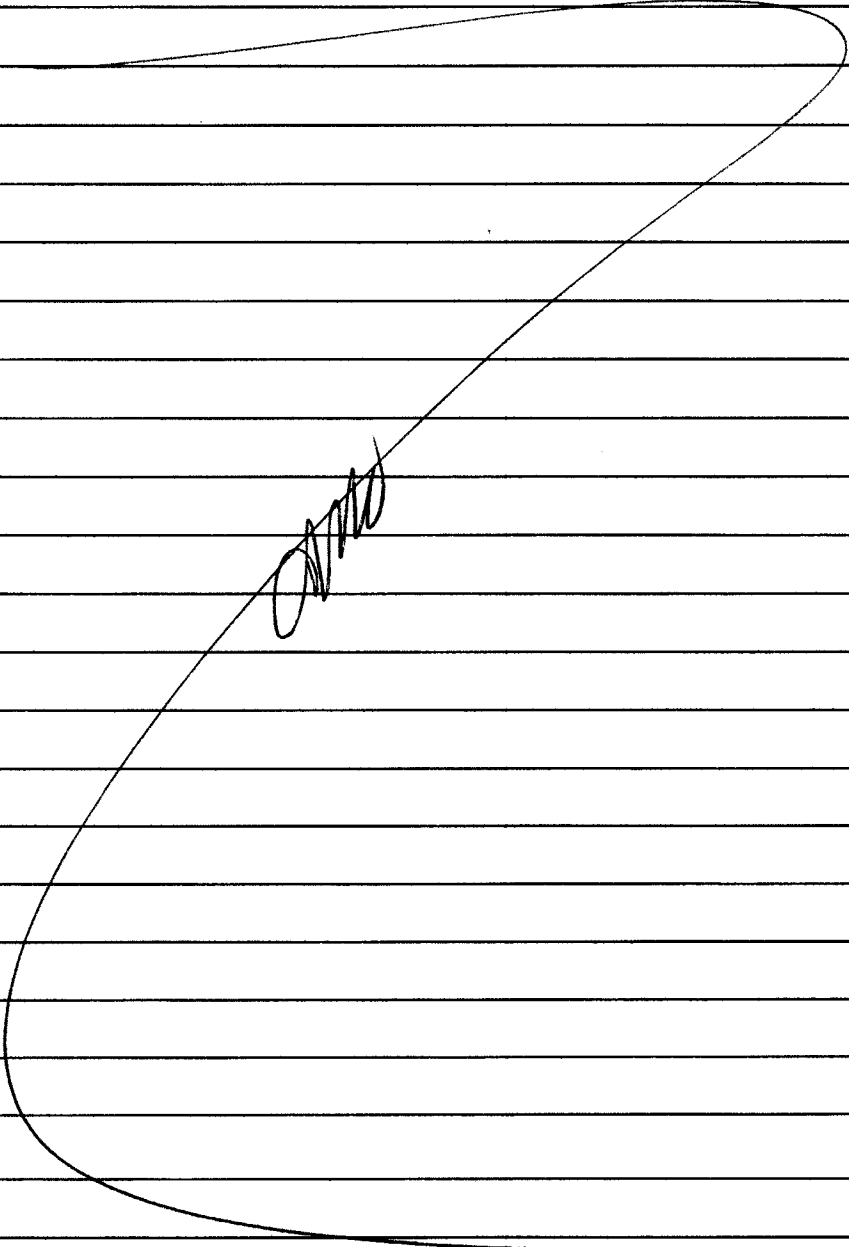
The following parameters were examined: sample preservation and holding time, matrix spike / matrix spike duplicate (MS/MSD) results, laboratory control sample (LCS) results, method blank results, field and/or rinsate blank results, field and laboratory duplicate results, initial and continuing calibrations, reporting limits and sample result verification.

Reviewed by: Churches Date: 6/28/02

QA Concurrence by: _____ Date: _____

Validation Summary

No Deficiencies were noted.



A large, stylized signature or scribble in the center of the page, spanning across multiple horizontal lines. The signature is written in black ink and appears to be a cursive or stylized name, possibly 'C. M. D.' or similar, with a long horizontal stroke extending to the right.

R - Unusable.

UJ - Not detected, limit of detection approximate.

Yes No

☒ ☐ All samples were extracted and analyzed within holding time criteria.

[illegible]

II. CALIBRATIONS (Instrumental Methods)

- Yes No
- ☒ ☐ The initial calibration consisted of 6-point curve bracketing the expected sample concentrations plus a blank.
- ☒ ☐ The correlation coefficient for each analyte in multipoint calibrations was ≥ 0.995 .
- ☒ ☐ Continuing calibration verifications (CCVs) were performed at the method-specified frequency.
- ☒ ☐ The % Recovery for each of the CCVs (bracketing samples) was within control limits (90 - 110%).
- ☒ ☐ No deficiencies were noted.

The following deficiencies were found:

Date/ Time	Analyte	I / C	Corr Coeff	%R	Affected Samples	Action

Remarks:

III. BLANKS (Method blanks, calibration blanks, field blanks, etc.)

Yes

No



At least one preparation blank was prepared with each batch of samples.



Blanks were reported at the RL for all non-detects.



Field QC samples were associated with this SDG.



No deficiencies were noted.

Field QC associated with this SDG were:

Field Blanks	Equipment Rinsate Blanks

The following contaminants were detected in blanks associated with samples in this SDG:

Blank ID	Matrix	Compound	Conc	Action Level	Associated Samples
GP15635	Soil	TOC less than RL			

Remarks:

IV. LABORATORY CONTROL SAMPLE

Yes No
☒ ☐ At least one LCS analysis was performed per batch of samples.
☒ ☐ LCS recoveries were within criteria (_____ % for water, or 80 - 120% for soil).
☒ ☐ No deficiencies were noted.

The following compounds fell outside the specified QC limits:

LCS ID	Matrix	Compound	%R	Control Limits	Qualifier Flags

LCS Summary: Unacceptable recoveries for each LCS analysis in the SDG.

LCS ID	GP15635		Matrix:	Soil	LCS ID			Matrix:	
Spike Recovery	0	Out of	1	Outside Limits	Spike Recovery		Out of		Outside Limits

Remarks:

V. MATRIX SPIKE (MS) ANALYSIS

Yes

No

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Matrix spike analysis was requested for this SDG.

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MS analysis was performed on sample F13055-11 found in SDG# F13055.

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☐

All recoveries and relative percent differences (RPDs) were within control limits.

The following deficiencies were found:

Type Analysis	Analyte	MS Recovery	MSD Recovery	MS/MSD QC Limits	RPD	RPD Limit

MS/MSD Summary: Unacceptable recoveries per the total number of matrix spike recoveries in the fraction.

Sample ID	F13055-11				Sample ID				
SDG	F13055		Matrix	Soil	SDG			Matrix	
Spike Rec.	0	out of	1	outside limits	Spike Rec.		out of		Outside limits

Remarks:

Note: No action will be taken based on MS/MSD data alone. Sample results may be affected by either a positive or negative bias due to deficient recoveries.

VI. DUPLICATE ANALYSES

- Yes No
- ☒ ☐ Laboratory duplicate analyses were performed with each sample batch.
- ☒ ☐ RPDs for the laboratory duplicate analyses were within criteria guidelines (< _____% for water, or <30% for soil).
- ☒ ☐ Field duplicates were associated with this QC batch.
- ☐ ☒ Qualification for field duplicates was attempted.

Field Sample/Duplicate ID: F13055-14/-17

Matrix: Soil

Laboratory Sample/Duplicate ID: F13055-11

Matrix: Soil

The relative percent difference (RPD) is calculated for each positive result identified in either the sample or (field) duplicate. There are no specific review criteria for field duplicate analysis comparability.

RPD is calculated using the following equation:

$$\text{RPD} = \frac{|A-B|}{(A+B)/2} \times 100$$

A = Sample Result

B = Duplicate Sample Result

The following deficiencies were found:

Type Duplicate Analysis		Compound	Sample Result	Duplicate Result	RPD	Action
Field	Lab					

Remarks:

Laboratory duplicates were less than RL. Field duplicates were less than RL.

VII. REPORTING LIMITS

Yes

No



Reporting limits (RLs) met client criteria for all analytes.

List any analytes for which the RL was not lower than the client or QAPP-specified RL (CRRL).

Analyte	Reported RL	CRRL	Action

Remarks:

VIII. SAMPLE RESULT VERIFICATION (Full Raw Data Package Validation Only)

Yes **No**
☐ ☒ Calculations for all positive hits were verified.

The following discrepancies were found:

[illegible]

Remarks:

Calculations were spot-checked.

Appendix C
EDD Verification

Appendix C - EDD Verification
Summary of Verified EDD Data
(CT040059 - Albany Round 4 Groundwater)

	Lab Sample ID:	F11289-2	F11289-3	F11289-4	F11289-5	F11289-6	F11289-3	F11289-4	F11289-5
	Field Sample ID (011-04-):	BKGD-S-22-Q1	BKGD-S-43-Q1	MP-30E-S-18'	MP-30E-S-30'	MP-30E-S-43'	MP-30E-S-72'-	BKGD-S-72'-Q1	MP-10N-S-18-Q
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sample Type:	N	N	N	FD	N	N	N	N
	Sample Collection Date:	10/22/2001	10/22/2001	10/22/2001	10/22/2001	10/22/2001	10/23/2001	10/23/2001	10/23/2001
Florida PRO (mg/Kg)									
TPH (C8-C40)		9.1 U	11.2 =	25.1 =	29.9 =	9.1 U	15.8 =	11.7 =	116 =
VOCs (µg/Kg)									
Benzene		230 U	270 U	2300 U	230 U	290 U	591 =	960 U	240 U
Ethylbenzene		13200 =	10700 =	38400 J	15900 J	458 =	5340 =	10100 =	9570 =
Toluene		112 J	2180 =	2300 U	118 J	219 J	13000 =	12600 =	240 U
Xylene (total)		39000 =	39700 =	91000 J	38800 J	1550 =	12000 =	29900 =	10100 =
PAHs (µg/Kg)									
Acenaphthene		740 U	710 U	720 U	740 U	700 U	730 U	720 U	1870 J
Acenaphthylene		740 U	710 U	720 U	740 U	700 U	730 U	720 U	3000 U
Anthracene		370 U	350 U	370 =	384 =	350 U	360 U	360 U	2320 =
Benzo(a)anthracene		370 U	350 U	910 =	857 =	350 U	360 U	360 U	3220 =
Benzo(a)pyrene		68.7 J	71.6 =	516 =	534 =	43.9 J	73 U	72 U	1450 =
Benzo(b)fluoranthene		48.3 J	48.8 J	309 =	291 =	33.8 J	73 U	72 U	749 =
Benzo(g,h,i)perylene		74 U	36.3 J	130 =	129 =	70 U	73 U	72 U	257 J
Benzo(k)fluoranthene		39.7 J	37.8 J	252 =	246 =	70 U	73 U	72 U	670 =
Chrysene		370 U	350 U	3250 =	3300 =	350 U	360 U	360 U	3750 =
Dibenz(a,h)anthracene		74 U	71 U	43.9 J	39.9 J	70 U	73 U	72 U	300 U
Fluoranthene		235 J	441 =	2320 =	2280 =	242 J	286 J	245 J	12300 =
Fluorene		370 U	350 U	262 J	306 J	350 U	360 U	360 U	1660 =
Indeno(1,2,3-cd)pyrene		74 U	35.2 J	186 =	171 =	70 U	73 U	72 U	351 =
1-Methylnaphthalene		370 U	350 U	360 U	370 U	350 U	360 U	360 U	1500 U
2-Methylnaphthalene		370 U	350 U	360 U	370 U	350 U	360 U	360 U	1500 U
Naphthalene		370 U	350 U	360 U	370 U	350 U	360 U	360 U	1500 U
Phenanthrene		144 J	342 J	1880 =	2040 =	153 J	213 J	203 J	10700 =
Pyrene		245 J	356 =	1940 =	1900 =	204 J	212 J	197 J	10200 =
Wet Chemistry (mg/Kg)									
Total Organic Carbon		1200 U	1000 U	1100 U	1100 U	1100 U	1100 U	1100 U	1100 U

Appendix C - EDD Verification
Summary of Verified EDD Data
(CTC#0059 - Albany Round 4 Groundwater)

	Lab Sample ID:		F11298-6		F11333-3		F11333-4		F11333-5		F11333-6		F11333-7		F11333-8		F11333-9	
	Field Sample ID (011-04):		MP-10N-S-38-Q		MP-5N-S-66-Q		MP-10W-S-18-Q		MP-10W-S-43-Q		MP-20S-S-18-Q		MP-20S-S-43-Q		MP-20S-S-72-Q		MP-10W-S-72-Q	
	Matrix:		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sample Type:		N		N		N		N		N		N		N		N	
Sample Collection Date:			10/23/2001		10/25/2001		10/25/2001		10/25/2001		10/26/2001		10/26/2001		10/26/2001		10/26/2001	
Florida PRO (mg/Kg)																		
TPH (C8-C40)																		
			16 =		74.1 =		10.5 =		28.6 =		12.4 =		8.9 U		22.2 =		12.7 =	
VOCs (µg/Kg)																		
Benzene			34.1 =		2400 U		220 U		9600 U		240 U		5.6 U		2570 =		4.8 U	
Ethylbenzene			120 =		31200 =		2100 =		49300 =		1600 =		5.6 U		15900 =		4.8 U	
Toluene			344 J		68000 =		220 U		139000 =		240 U		5.6 U		31800 =		4.8 U	
Xylene (total)			353 =		112000 =		252 J		98900 =		1520 =		17 U		47600 =		14 U	
PAHs (µg/Kg)																		
Acenaphthene			720 U		740 U		710 U		780 U		740 U		710 U		710 U		720 U	
Acenaphthylene			720 U		740 U		710 U		780 U		740 U		710 U		710 U		720 U	
Anthracene			360 U		473 =		350 U		390 U		370 U		360 U		360 U		360 U	
Benzo(a)anthracene			364 =		807 =		350 U		390 U		370 U		360 U		360 U		360 U	
Benzo(a)pyrene			166 =		336 =		62.5 J		42.2 J		74 U		71 U		40.9 J		53 J	
Benzo(b)fluoranthene			94.1 =		203 =		36.3 J		78 U		74 U		71 U		40 J		40.7 J	
Benzo(g,h,i)perylene			36.2 J		86.1 =		71 U		78 U		74 U		71 U		71 U		72 U	
Benzo(k)fluoranthene			96.6 =		187 =		71 U		78 U		74 U		71 U		34.4 J		35 J	
Chrysene			312 J		1420 =		350 U		390 U		370 U		360 U		360 U		720 U	
Dibenz(a,h)anthracene			72 U		74 U		71 U		78 U		74 U		71 U		71 U		72 U	
Fluoranthene			1270 =		2930 =		252 J		235 J		370 U		360 U		388 =		360 U	
Fluorene			360 U		292 J		350 U		390 U		370 U		360 U		360 U		360 U	
Indeno(1,2,3-cd)pyrene			40.4 J		97.7 =		71 U		78 U		74 U		71 U		71 U		72 U	
1-Methylnaphthalene			360 U		370 U		350 U		390 U		370 U		360 U		360 U		360 U	
2-Methylnaphthalene			360 U		370 U		350 U		390 U		370 U		360 U		360 U		360 U	
Naphthalene			360 U		370 U		350 U		390 U		370 U		360 U		360 U		360 U	
Phenanthrene			961 =		2270 =		350 U		390 U		370 U		360 U		294 J		360 U	
Pyrene			1090 =		2450 =		240 J		193 J		370 U		360 U		302 J		174 J	
Wet Chemistry (mg/Kg)																		
Total Organic Carbon			1100 U		1100 U		1100 U		1200 U		1100 U		1100 U		1100 U		1100 U	

Appendix C - EDD Verification
Summary of Verified EDD Data
(CTO#0059 - Albany Round 4 Groundwater)

	Lab Sample ID: F12178-2 F12178-3 F12178-4 F12178-5 F12178-6 F12178-7 F12178-8 F12178-9									
	Field Sample ID (011-04-): MP-10W-S-18- MP-10W-S-43- MP-10W-S-72- MP-05N-S-18- MP-05N-S-38- MP-05N-S-66- MP-30E-S-18- MP-30E-S-43-									
	Matrix: SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL									
	Sample Type: N N N N N N N N N N									
Sample Collection Date: 1/30/2002 1/30/2002 1/30/2002 1/30/2002 1/30/2002 1/30/2002 1/30/2002 1/30/2002 1/30/2002 1/30/2002										
Florida PRO (mg/Kg)										
TPH (C8-C40)	16.1 U	10.3 U	14.9 U	936 =	67.3 U	8.6 U	40.9 U	23.8 U		
VOCs (µg/Kg)										
Benzene	290 U	9.9 =	120 J	2500 U	3.6 J	300 U	2400 U	270 U		
Ethylbenzene	10700 =	15.5 =	205 J	46100 =	19.9 =	313 =	73600 =	103 J		
Toluene	290 U	73.1 =	682 =	2500 U	38 =	1170 =	2400 U	94.2 J		
Xylene (total)	7040 =	54.4 =	436 J	64800 =	101 =	703 J	168000 =	238 J		
PAHs (µg/Kg)										
Acenaphthene	790 U	680 U	720 U	20400 J	709 J	720 U	700 U	730 U		
Acenaphthylene	790 U	680 U	720 U	31000 U	1500 U	720 U	700 U	730 U		
Anthracene	390 U	340 U	360 U	27700 J	1050 =	360 U	350 U	360 U		
Benzo(a)anthracene	161 J	340 U	360 U	30200 J	1310 =	360 U	350 U	360 U		
Benzo(a)pyrene	97.7 =	55.5 J	69.6 J	13000 J	528 =	72 U	63.8 J	60.4 J		
Benzo(b)fluoranthene	54.4 J	48.5 J	52.7 J	7260 J	319 =	72 U	45.4 J	43.3 J		
Benzo(g,h,i)perylene	79 U	68 U	72 U	3050 J	132 J	72 U	70 U	73 U		
Benzo(k)fluoranthene	42.3 J	44.5 J	49.8 J	6170 J	267 =	72 U	41.6 J	42.5 J		
Chrysene	390 U	340 U	360 U	17400 J	772 =	360 U	350 U	360 U		
Dibenz(a,h)anthracene	79 U	68 U	72 U	913 J	150 U	72 U	70 U	73 U		
Fluoranthene	448 =	340 U	271 J	119000 J	4930 =	204 J	350 U	360 U		
Fluorene	390 U	340 U	360 U	17400 J	670 J	360 U	350 U	360 U		
Indeno(1,2,3-cd)pyrene	79 U	68 U	72 U	3460 J	155 =	72 U	70 U	73 U		
1-Methylnaphthalene	390 U	340 U	360 U	16000 U	730 U	360 U	350 U	360 U		
2-Methylnaphthalene	390 U	340 U	360 U	7920 J	730 U	360 U	350 U	360 U		
Naphthalene	390 U	340 U	360 U	16000 U	730 U	360 U	350 U	360 U		
Phenanthrene	352 J	340 U	360 U	106000 J	4180 =	360 U	350 U	360 U		
Pyrene	443 =	178 J	263 J	92900 J	3800 =	168 J	350 U	360 U		
Wet Chemistry (mg/Kg)										
Total Organic Carbon	1100 U	1100 U	1100 U	1560 =	1100 U	1100 U	1100 U	1100 U		

Appendix C - EDD Verification
Summary of Verified EDD Data
(CTO#00059 - Albany Round 4 Groundwater)

Lab Sample ID:	F12221-2	F12221-3	F12221-4	F12221-5	F12221-6	F12221-7	F12221-8	F12221-9
Field Sample ID (011-04-):	MP-30E-S-72-	BKGD-S-22'-Q2	BKGD-S-43'-Q2	BKGD-S-72'-Q2	MP-20S-S-18'-	MP-20S-S-43'-	MP-20S-S-72'-	MP-20S-S-100'
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Type:	N	N	N	N	N	N	N	N
Sample Collection Date:	2/4/2002	2/4/2002	2/4/2002	2/4/2002	2/4/2002	2/4/2002	2/4/2002	2/4/2002
Florida PRO (mg/Kg)								
TPH (C8-C40)	7.41 J	8.53 J	17.5 =	14.3 =	9.91 =	8.09 J	8.7 U	9 U
VOCs (µg/Kg)								
Benzene	5.5 U	270 U	250 U	290 U	230 U	5.2 U	5.7 U	5.2 U
Ethylbenzene	4.7 J	413 =	7310 =	3700 =	7210 =	21.1 =	1.1 J	2.9 J
Toluene	11.3 =	270 U	3860 =	6740 =	230 U	5.2 U	6.1 =	5.2 U
Xylene (total)	15.2 J	1560 =	21600 =	11400 =	5270 =	19.3 =	5.7 J	3 J
PAHs (µg/Kg)								
Acenaphthene	700 U	700 U	780 U	700 U	770 U	710 U	690 U	720 U
Acenaphthylene	700 U	700 U	780 U	700 U	770 U	710 U	690 U	720 U
Anthracene	350 U	350 U	390 U	350 U	380 U	360 U	340 U	360 U
Benzo(a)anthracene	350 U	350 U	390 U	221 J	380 U	360 U	340 U	360 U
Benzo(a)pyrene	70 U	83.2 =	82.3 =	116 =	77 U	71 U	69 U	72 U
Benzo(b)fluoranthene	70 U	53.1 J	61.8 J	94.6 =	77 U	71 U	69 U	72 U
Benzo(g,h,i)perylene	70 U	36.9 J	43.6 J	62.3 J	77 U	71 U	69 U	72 U
Benzo(k)fluoranthene	70 U	42.1 J	45.8 J	85.1 =	77 U	71 U	69 U	72 U
Chrysene	350 U	350 U	390 U	248 J	380 U	360 U	340 U	360 U
Dibenz(a,h)anthracene	70 U	70 U	78 U	70 U	77 U	71 U	69 U	72 U
Fluoranthene	180 J	310 J	358 J	761 =	380 U	360 U	340 U	360 U
Fluorene	350 U	350 U	390 U	350 U	380 U	360 U	340 U	360 U
Indeno(1,2,3-cd)pyrene	70 U	37 J	78 U	40.6 J	77 U	71 U	69 U	72 U
1-Methylnaphthalene	350 U	350 U	390 U	350 U	380 U	360 U	340 U	360 U
2-Methylnaphthalene	350 U	350 U	390 U	350 U	380 U	360 U	340 U	360 U
Naphthalene	350 U	350 U	390 U	350 U	380 U	360 U	340 U	360 U
Phenanthrene	149 J	250 J	303 J	681 =	380 U	360 U	340 U	360 U
Pyrene	139 J	266 J	306 J	612 =	380 U	360 U	340 U	360 U
Wet Chemistry (mg/Kg)								
Total Organic Carbon	1100 U	1100 U	1200 U	1100 U	1200 U	1100 U	1100 U	1100 U

Appendix C - EDD Verification
Summary of Verified EDD Data
(GTO#00059 - Albany Round 4 Groundwater)

Lab Sample ID:		F13055-10		F13055-11		F13055-12		F13055-13		F13055-14		F13055-15		F13055-16		F13055-17	
Field Sample ID (011-04-):		MP-FD1-S-100'		MP-05N-S-18'		MP-05N-S-38'		MP-05N-S-66'		MP-10W-S-18'		MP-10W-S-43'		MP-10W-S-72'		MP-FD2-S-100'	
Matrix:		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
Sample Type:		N		N		N		N		N		N		N		FD	
Sample Collection Date:		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002		4/30/2002	
Florida PRO (mg/Kg)																	
TPH (C8-C40)																	
		21.5 =		23.9 =		19.5 =		20.6 =		14.6 =		7.67 J		29.5 =		18.4 =	
VOCs (µg/Kg)																	
Benzene		300 U		260 U		6.2 U		5460 =		270 U		6.7 U		8700 =		2900 U	
Ethylbenzene		300 U		225 J		11.8 =		31500 =		5000 J		9.2 =		55700 =		62300 J	
Toluene		300 U		260 U		6.4 =		121000 =		187 J		31.4 =		220000 =		2900 U	
Xylene (total)		900 U		770 U		14.6 J		74000 =		7640 J		24.5 =		127000 =		53600 J	
PAHs (µg/Kg)																	
Acenaphthene		268 J		1430 =		720 U		710 U		710 U		700 U		720 U		730 U	
Acenaphthylene		710 U		750 U		720 U		710 U		710 U		700 U		720 U		730 U	
Anthracene		279 J		236 J		298 J		164 J		350 U		350 U		230 J		370 U	
Benzo(a)anthracene		324 J		210 J		426 =		305 J		47.4 J		73.1 J		349 J		42.7 J	
Benzo(a)pyrene		142 =		116 =		190 =		135 =		71 U		70 U		173 =		73 U	
Benzo(b)fluoranthene		96.2 =		68.5 J		125 =		91.4 =		71 U		70 U		105 =		73 U	
Benzo(g,h,i)perylene		49.2 J		31.7 J		73.9 =		48.8 J		71 U		70 U		46.2 J		73 U	
Benzo(k)fluoranthene		82.2 =		50.7 J		108 =		80.4 =		71 U		70 U		83.8 =		73 U	
Chrysene		308 J		248 J		369 =		292 J		350 U		350 U		420 =		370 U	
Dibenz(a,h)anthracene		71 U		75 U		72 U		71 U		71 U		70 U		72 U		73 U	
Fluoranthene		1380 =		619 =		1670 =		968 =		120 J		254 J		1210 =		113 J	
Fluorene		272 J		1040 =		234 J		99.3 J		350 U		350 U		141 J		370 U	
Indeno(1,2,3-cd)pyrene		43.4 J		37.9 J		55.9 J		35.8 J		71 U		70 U		40.2 J		73 U	
1-Methylnaphthalene		360 U		187 J		360 U		350 U		350 U		350 U		360 U		370 U	
2-Methylnaphthalene		360 U		740 U		360 U		350 U		350 U		350 U		360 U		370 U	
Naphthalene		360 U		370 U		360 U		350 U		350 U		350 U		360 U		370 U	
Phenanthrene		1400 =		2060 =		1500 =		749 =		82 J		155 J		1000 =		85.7 J	
Pyrene		1170 =		517 =		1430 =		828 =		102 J		224 J		1040 =		96.3 J	
Wet Chemistry (mg/Kg)																	
Total Organic Carbon		1100 U		1100 U		1100 U		1100 U		1100 U		1100 U		1100 U		1100 U	

Appendix C - EDD Verification
Summary of Verified EDD Data
(CTO#0059 - Albany Round 4 Groundwater)

Lab Sample ID:		F13055-2	F13055-3	F13055-4	F13055-5	F13055-6	F13055-9	F13066-2	F13066-3
Field Sample ID (011-04-):		BKGD-S-22'-Q3	BKGD-S-43'-Q3	BKGD-S-72'-Q3	MP-30E-S-18'-	MP-30E-S-43'-	MP-30E-S-72'-	MP-20S-S-18'-	MP-30E-S-43'-
Matrix:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Type:		N	N	N	N	N	FD	N	N
Sample Collection Date:		4/29/2002	4/29/2002	4/29/2002	4/29/2002	4/29/2002	4/30/2002	5/1/2002	5/1/2002
Florida PRO (mg/Kg)									
TPH (C8-C40)		11.9 =	9.1 U	81.8 =	25.4 =	10.4 =	9.41 =	9.32 J	9.3 U
VOCs (µg/Kg)									
Benzene		290 U	360 U	2600 U	300 U	6.4 U	330 U	260 U	6 U
Ethylbenzene		15600 =	2020 =	44400 =	797 =	6.4 U	324 J	13300 =	24 =
Toluene		290 U	290 J	72000 =	124 J	2.9 J	594 =	260 U	6 U
Xylene (total)		41600 =	8790 =	147000 =	499 J	19 U	959 J	10300 =	39.7 =
PAHs (µg/Kg)									
Acenaphthene		730 U	680 U	690 U	1340 =	690 U	700 U	740 U	720 U
Acenaphthylene		730 U	680 U	690 U	740 U	690 U	700 U	740 U	720 U
Anthracene		360 U	340 U	350 U	249 J	350 U	350 U	370 U	360 U
Benzo(a)anthracene		73.5 J	340 U	350 U	225 J	167 J	113 J	370 U	360 U
Benzo(a)pyrene		73 U	68 U	69 U	130 =	83.5 =	51 J	74 U	72 U
Benzo(b)fluoranthene		73 U	68 U	69 U	75.7 =	64.3 J	36.7 J	74 U	72 U
Benzo(g,h,i)perylene		73 U	68 U	69 U	37.5 J	47.7 J	70 U	74 U	72 U
Benzo(k)fluoranthene		73 U	68 U	69 U	62.5 J	56.6 J	70 U	74 U	72 U
Chrysene		109 J	340 U	350 U	187 J	162 J	133 J	370 U	360 U
Dibenz(a,h)anthracene		73 U	68 U	69 U	74 U	69 U	70 U	74 U	72 U
Fluoranthene		198 J	102 J	108 J	687 =	574 =	404 =	370 U	360 U
Fluorene		360 U	340 U	350 U	1040 =	350 U	350 U	370 U	360 U
Indeno(1,2,3-cd)pyrene		73 U	68 U	69 U	44.3 J	69 U	70 U	74 U	72 U
1-Methylnaphthalene		360 U	340 U	350 U	156 J	350 U	350 U	370 U	360 U
2-Methylnaphthalene		360 U	340 U	350 U	740 U	350 U	350 U	370 U	360 U
Naphthalene		360 U	340 U	350 U	370 U	350 U	350 U	370 U	360 U
Phenanthrene		161 J	101 J	107 J	2170 =	532 =	392 =	370 U	360 U
Pyrene		170 J	88.9 J	90.1 J	574 =	487 =	343 J	370 U	360 U
Wet Chemistry (mg/Kg)									
Total Organic Carbon		1100 U	1100 U	1100 U	1100 U	1100 U	1100 U	1100 U	1100 U

Appendix C - EDD Verification
Summary of Verified EDD Data
(CTO#0059 - Albany Round 4 Groundwater)

Lab Sample ID: F13066-4		220404402		220404403	
Field Sample ID (011-04-): MP-30E-S-72-		01116CSS01		01116CSS02	
Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
Sample Type:	N	N	N	N	N
Sample Collection Date:	5/1/2002	5/10/2002	5/10/2002	5/10/2002	5/10/2002
Florida PRO (mg/Kg)					
TPH (C8-C40)	10.3 =	--	--	--	--
VOCs (µg/Kg)					
Benzene	280 U	--	--	--	--
Ethylbenzene	157 J	--	--	--	--
Toluene	404 =	--	--	--	--
Xylene (total)	367 J	--	--	--	--
PAHs (µg/Kg)					
Acenaphthene	710 U	6.7 U	6.6 U	6.6 U	6.6 U
Acenaphthylene	710 U	6.7 U	6.6 U	6.6 U	6.6 U
Anthracene	360 U	6.7 U	4 J	4 J	4 J
Benzo(a)anthracene	64.3 J	17.9 =	36.7 =	36.7 =	36.7 =
Benzo(a)pyrene	71 U	137 =	169 =	169 =	169 =
Benzo(b)fluoranthene	71 U	18.3 =	61.7 =	61.7 =	61.7 =
Benzo(g,h,i)perylene	71 U	22.1 =	63.7 =	63.7 =	63.7 =
Benzo(k)fluoranthene	71 U	6.5 J	27.3 =	27.3 =	27.3 =
Chrysene	360 U	16.2 =	43 =	43 =	43 =
Dibenz(a,h)anthracene	71 U	6.7 U	23.8 =	23.8 =	23.8 =
Fluoranthene	212 J	40.4 =	112 =	112 =	112 =
Fluorene	360 U	6.7 U	6.6 U	6.6 U	6.6 U
Indeno(1,2,3-cd)pyrene	71 U	15.1 =	70.3 =	70.3 =	70.3 =
1-Methylnaphthalene	360 U	6.7 U	6.6 U	6.6 U	6.6 U
2-Methylnaphthalene	360 U	6.7 U	6.6 U	6.6 U	6.6 U
Naphthalene	360 U	6.7 U	6.6 U	6.6 U	6.6 U
Phenanthrene	160 J	9.7 =	6.6 U	6.6 U	6.6 U
Pyrene	167 J	18.4 =	86.1 =	86.1 =	86.1 =
Wet Chemistry (mg/Kg)					
Total Organic Carbon	1100 U	--	--	--	--

Appendix G

Contractor Production Reports and Contractor Quality Control Records

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)					Date: 4/29/02 Day: Monday			
Contract No. N62467-98-D-0995		CTO No. 011	Location NAS Whiting Field		Project No. 151168			
Contractor: CH2M HILL Constructors, Inc.					Superintendent: Terry McElveen			
AM Weather Clear		PM Weather Clear		Precipitation 0"		Max Temp 84°F Min Temp 73°F		
		Was A Job Safety Meeting Held This Date? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			CCI Hours Worked Today		27.5	
					Subcontractor Hrs Worked Today		19	
		Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Total Site Hours Worked Today		46.5	
					Cumulative Total Of Hours Worked From Previous Report.		0	
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cumulative Total of Hours Worked From Start Of Construction.		46.5	
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Have Safety Requirements Been Met?		<input checked="" type="checkbox"/> Yes	
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> Safety meeting with all personnel, verified that everyone had reviewed and signed safety plan. Discussed specifics for this task and verified that all required safety equipment is on site and available for use.								
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> 1 – Truck mounted DPT rig (Kelly Drilling) 1 – Site work truck (Kelly Drilling) 1 – Site equipment trailer (Kelly Drilling) 1 – Site work truck (CH2M Hill) Level B equipment for use if necessary (CH2M Hill, Kelly Drilling) 1 – POV (CH2M Hill)								
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – Site Pickup – CH2M Hill – 12 Hrs 1 – POV – CH2M Hill – 12 Hrs 1 – Truck Mounted DTP rig – Kelly Drilling – 6 Hrs 1 – Site Truck – Kelly Drilling – 8 Hrs 1 – Site Trailer (water/pressure washer) – Kelly – 8 Hrs								
Work Force: Name, Location or Description					Employer	Number	Trade	Hrs
Terry McElveen					CH2MHill/CCI	1	SSup	12
Ryan Bitely					CH2M Hill	1	QAQC	12.5
Bobby Kelly					Kelly Drilling	1	Sup	9.5
Reggie Jackson					Kelly Drilling	1	Tech	9.5
Work Performed This Date & Remarks: <u>Site 4</u> <ul style="list-style-type: none"> Mobilization/Site Setup – Personnel and equipment mobilized to site this morning, Kelly set up equipment decon adjacent to site 4, obtained water for portable tank in trailer. Received and inspected breathing air equipment in case PPE upgrade is necessary. Received and calibrated air monitoring equipment. 								

- **Soil Sampling**

Began this sample event by with the background sample, total depth of 72', 3 samples obtained at shallow, intermediate and deep locations within well.

Obtained shallow and intermediate samples from location adjacent to 30E to depth of 42'.

Total of 5 samples today and total depth of 114 ft.

Terry McElveen 4/29/02

Terry McElveen

Contractors Superintendent

Date

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)				Date: 4/30/02 Day: Tuesday																															
Contract No. N62467-98-D-0995	CTO No. 011	Location NAS Whiting Field	Project No. 151168	Report No. 002																															
Contractor: CH2M HILL Constructors, Inc.			Superintendent: Terry McElveen																																
AM Weather Clear	PM Weather Clear	Precipitation 0"	Max Temp 86°F	Min Temp 74°F																															
			Was A Job Safety Meeting Held This Date? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CCI Hours Worked Today 25																														
					Subcontractor Hrs Worked Today 21																														
					Total Site Hours Worked Today 46																														
			Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total Of Hours Worked From Previous Report. 46.5																														
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Cumulative Total of Hours Worked From Start Of Construction. 92.5																															
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Have Safety Requirements Been Met? <input checked="" type="checkbox"/> Yes																															
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> Safety meeting with all personnel. Discussed the AHA/Pre-Task safety checklist for operations to be performed today, heat stress – keeping hydrated/cool.																																			
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> N/A																																			
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – Site Pickup – CH2M Hill – 12 Hrs 1 – POV – CH2M Hill – 12 Hrs 1 – Truck Mounted DTP rig – Kelly Drilling – 10 Hrs 1 - Site Truck – Kelly Drilling – 10 Hrs 1 – Site Trailer (water/pressure washer) – Kelly – 10 Hrs																																			
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Work Force: Name, Location or Description	Employer	Number	Trade	Hrs																															
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Ryan Bitely	CH2M Hill	1	QAQC	12.5																															
Bobby Kelly	Kelly Drilling	1	Sup	10.5																															
Reggie Jackson	Kelly Drilling	1	Tech	10.5																															
<u>Work Performed This Date & Remarks:</u> <u>Site 4</u> <ul style="list-style-type: none"> Soil Sampling Continued obtaining soil samples adjacent to the monitoring point locations for each well today. Today's progress: Well #30E – obtained 1 deep sample (72') Well #5N – obtained 3 samples - shallow, med. and deep samples (total of 72') Well #10W – obtained 3 samples – shallow, med. and deep samples (total of 72') Delivered samples from both days to fedex for shipment to lab. <div style="text-align: right; margin-top: 20px;"> Terry McElveen 4/30/02 <hr/> <div style="display: flex; justify-content: space-between;"> Terry McElveen Contractors Superintendent Date </div> </div>																																			

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)					Date: 5/01/02 Day: Wednesday			
Contract No. N62467-98-D-0995		CTO No. 011	Location NAS Whiting Field		Project No. 151168	Report No. 003		
Contractor: CH2M HILL Constructors, Inc.				Superintendent: Terry McElveen				
AM Weather Clear		PM Weather Clear	Precipitation 0"	Max Temp 83°F		Min Temp 71°F		
		Was A Job Safety Meeting Held This Date? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			CCI Hours Worked Today		24	
					Subcontractor Hrs Worked Today		20	
		Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Total Site Hours Worked Today		44	
					Cumulative Total Of Hours Worked From Previous Report.		92.5	
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total of Hours Worked From Start Of Construction.	136.5	
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met?	<input checked="" type="checkbox"/> Yes	
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> Safety meeting with all personnel, discussed hearing protection, heat stress, various environmental hazards.								
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> N/A								
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – Site Pickup – CH2M Hill – 12 Hrs 1 – POV – CH2M Hill – 12 Hrs 1 – Truck Mounted DTP rig – Kelly Drilling – 10 Hrs 1 - Site Truck – Kelly Drilling – 10 Hrs 1 – Site Trailer (water/pressure washer) – Kelly – 10 Hrs								
Work Force: Name, Location or Description					Employer	Number	Trade	Hrs
Terry McElveen					CH2MHill/CCI	1	SSup	12
Ryan Bitely					CH2M Hill	1	QAQC	12
Bobby Kelly					Kelly Drilling	1	Sup	10
Reggie Jackson					Kelly Drilling	1	Tech	10
Work Performed This Date & Remarks: <u>Site 4</u> <ul style="list-style-type: none"> Soil Sampling Completed soil sampling activities today. Sampled well #20S, 3 samples taken to total depth of 72'. We did have one snag today, the DPT rod drifted a little at during the last push and drifted into the deep well at cluster 20S. We think we may have damaged the casing at the bottom 1'-2' of this well. We will close the bottom section of the borehole with pebbles so that we do not load the bottom of well with bentonite. Well screen adjustment We utilized the DPT rig to aid in lowering the screens in all five SRS wells to their lowest position. This activity was completed today, all screens were lowered either to their lowest position (72') or as low as they could be moved, no problems encountered during this activity. 								

- **Demobilization**

Kelly drilling completed activities required of them and demobilized from project. They deconned all equipment prior to leaving and removed decon pad. All decon fluids were contained in the on site storage tank.

Terry McElveen 5/01/02

Terry McElveen

Contractors Superintendent

Date

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)				Date: 5/02/02 Day: Thursday	
Contract No. N62467-98-D-0995	CTO No. 011	Location NAS Whiting Field	Project No. 151168	Report No. 004	
Contractor: CH2M HILL Constructors, Inc.			Superintendent: Terry McElveen		
AM Weather Clear	PM Weather Clear	Precipitation 0"	Max Temp 83°F	Min Temp 71°F	
		Was A Job Safety Meeting Held This Date? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CCI Hours Worked Today	18
				Subcontractor Hrs Worked Today	0
				Total Site Hours Worked Today	18
		Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total Of Hours Worked From Previous Report.	136.5
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total of Hours Worked From Start Of Construction.	154.5
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met?	<input checked="" type="checkbox"/> Yes
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> Safety between myself and Ryan, discussed replacement of SRS units, methods of minimizing release of gases/vapors from wells to possibly prevent PPE upgrade.					
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> N/A					
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – Site Pickup – CH2M Hill – 12 Hrs 1 – POV – CH2M Hill – 12 Hrs					
<u>Work Force: Name, Location or Description</u>		<u>Employer</u>	<u>Number</u>	<u>Trade</u>	<u>Hrs</u>
Terry McElveen		CH2MHill/CCI	1	SSup	8
Ryan Bitely		CH2M Hill	1	QAQC	10
<u>Work Performed This Date & Remarks:</u> <u>Site 4</u> <ul style="list-style-type: none"> Well screen adjustment The adjustment of the screens was completed yesterday, today Ryan and I replaced the SRS units on the wells. Unit #3 is still out of service (being repaired) and we had problems with unit #2, the fans did not want to run. We had one of the two fans in the blower operating when I left site. Demobilization – I demobilized from site, Ryan and Beth will return to sample the wells on Monday 					
Terry McElveen 5/03/02 _____ Terry McElveen Contractors Superintendent Date					

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)					Date: 5/03/02 Day: Friday																															
Contract No. N62467-98-D-0995		CTO No. 011	Location NAS Whiting Field	Project No. 151168		Report No. 005																														
Contractor: CH2M HILL Constructors, Inc.				Superintendent: Terry McElveen																																
AM Weather Clear		PM Weather Clear		Precipitation 0"	Max Temp 83°F	Min Temp 71°F																														
	Was A Job Safety Meeting Held This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				CCI Hours Worked Today		4																													
					Subcontractor Hrs Worked Today		0																													
	Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Total Site Hours Worked Today		4																													
					Cumulative Total Of Hours Worked From Previous Report.		154.5																													
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total of Hours Worked From Start Of Construction.	158.5																													
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met?	<input checked="" type="checkbox"/> Yes																													
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> Ryan Bitely on site chasing down excavation permit for the excavations at sites 6, 16, and 38.																																				
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> N/A																																				
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – POV – CH2M Hill – 4 Hrs																																				
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Work Force: Name, Location or Description	Employer	Number	Trade	Hrs																																
Terry McElveen	CH2MHill/CCI	1	SSup	0																																
Ryan Bitely	CH2M Hill	1	QAQC	4																																
<u>Work Performed This Date & Remarks:</u> <u>Site 4</u> <ul style="list-style-type: none"> No work performed at site 4 today <u>Sites 6, 16, and 38</u> <ul style="list-style-type: none"> Ryan Bitely on site obtaining excavation permits for site work next week. <div style="text-align: right;"> Terry McElveen 5/03/02 <hr/> Terry McElveen Contractors Superintendent Date </div>																																				

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)					Date: 5/04/02 Day: Saturday			
Contract No. N62467-98-D-0995		CTO No. 011	Location NAS Whiting Field		Project No. 151168			
Contractor: CH2M HILL Constructors, Inc.					Superintendent: Terry McElveen			
AM Weather N/A		PM Weather N/A		Precipitation 0"		Max Temp N/A Min Temp N/A		
		Was A Job Safety Meeting Held This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			CCI Hours Worked Today		0	
					Subcontractor Hrs Worked Today		0	
		Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			Total Site Hours Worked Today		0	
					Cumulative Total Of Hours Worked From Previous Report.		158.5	
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total of Hours Worked From Start Of Construction. 158.5	
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met? <input checked="" type="checkbox"/> Yes	
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> N/A								
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> N/A								
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> N/A								
Work Force: Name, Location or Description					Employer	Number	Trade	Hrs
Terry McElveen					CH2MHill/CCI	1	SSup	0
Ryan Bitely					CH2M Hill	1	QAQC	0
Work Performed This Date & Remarks: <u>Site 4</u> <ul style="list-style-type: none"> No work performed at site 4 today <u>Sites 6, 16, and 38</u> <ul style="list-style-type: none"> No work performed on these sites today. <div style="text-align: right;"> Terry McElveen 5/04/02 _____ Terry McElveen Contractors Superintendent Date </div>								

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)				Date: 5/05/02 Day: Sunday																															
Contract No. N62467-98-D-0995	CTO No. 011	Location NAS Whiting Field	Project No. 151168	Report No. 007																															
Contractor: CH2M HILL Constructors, Inc.			Superintendent: Terry McElveen																																
AM Weather N/A	PM Weather N/A	Precipitation 0"	Max Temp N/A	Min Temp N/A																															
			CCI Hours Worked Today		0																														
			Subcontractor Hrs Worked Today		0																														
			Total Site Hours Worked Today		0																														
			Cumulative Total Of Hours Worked From Previous Report.		158.5																														
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total of Hours Worked From Start Of Construction. 158.5																														
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met? <input checked="" type="checkbox"/> Yes																														
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> N/A																																			
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> N/A																																			
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> N/A																																			
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Work Force: Name, Location or Description	Employer	Number	Trade	Hrs																															
Terry McElveen	CH2MHill/CCI	1	SSup	0																															
Ryan Bitely	CH2M Hill	1	QAQC	0																															
<u>Work Performed This Date & Remarks:</u> <u>Site 4</u> <ul style="list-style-type: none"> No work performed at site 4 today <u>Sites 6, 16, and 38</u> <ul style="list-style-type: none"> No work performed on these sites today. <div style="text-align: right;"> Terry McElveen 5/05/02 <hr style="width: 80%; margin: 0 auto;"/> <div style="display: flex; justify-content: space-between; width: 80%; margin: 0 auto;"> Terry McElveen Contractors Superintendent Date </div> </div>																																			

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)				Date: 5/06/02 Day: Monday																															
Contract No. N62467-98-D-0995	CTO No. 011	Location NAS Whiting Field	Project No. 151168	Report No. 008																															
Contractor: CH2M HILL Constructors, Inc.			Superintendent: Terry McElveen																																
AM Weather Partly Cloudy	PM Weather Partly Cloudy	Precipitation 0"	Max Temp 83°F	Min Temp 69°F																															
		Was A Job Safety Meeting Held This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CCI Hours Worked Today	10																														
				Subcontractor Hrs Worked Today	8																														
				Total Site Hours Worked Today	18																														
		Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total Of Hours Worked From Previous Report.	158.5																														
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total of Hours Worked From Start Of Construction.	176.5																														
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met?	<input checked="" type="checkbox"/> Yes																														
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> N/A																																			
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> 1 – Site Truck – CH2M Hill 1 – Site Van – J.J. Sosa																																			
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – Site Truck – CH2M Hill 1 – POV – CH2M Hill – 9 Hrs 1 – Site Van – J.J. Sosa – 8 Hrs																																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 45%;">Work Force: Name, Location or Description</th> <th style="width: 15%;">Employer</th> <th style="width: 10%;">Number</th> <th style="width: 10%;">Trade</th> <th style="width: 10%;">Hrs</th> </tr> </thead> <tbody> <tr> <td>Terry McElveen</td> <td>CH2MHill/CCI</td> <td style="text-align: center;">1</td> <td>SSup</td> <td style="text-align: center;">1</td> </tr> <tr> <td>Ryan Bitely</td> <td>CH2M Hill</td> <td style="text-align: center;">1</td> <td>QAQC</td> <td style="text-align: center;">9</td> </tr> <tr> <td>Joshua Wallace</td> <td>JJ Sosa</td> <td style="text-align: center;">1</td> <td>Sup</td> <td style="text-align: center;">8</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>						Work Force: Name, Location or Description	Employer	Number	Trade	Hrs	Terry McElveen	CH2MHill/CCI	1	SSup	1	Ryan Bitely	CH2M Hill	1	QAQC	9	Joshua Wallace	JJ Sosa	1	Sup	8										
Work Force: Name, Location or Description	Employer	Number	Trade	Hrs																															
Terry McElveen	CH2MHill/CCI	1	SSup	1																															
Ryan Bitely	CH2M Hill	1	QAQC	9																															
Joshua Wallace	JJ Sosa	1	Sup	8																															
<u>Work Performed This Date & Remarks:</u> <u>Site 4</u> <ul style="list-style-type: none"> Sampling – Ryan Bitely obtained air samples from SRS units, 1st of three consecutive days after lowering the screens. <u>Sites 6, 16, and 38</u> <ul style="list-style-type: none"> Mobilization – Terry McElveen (CH2M Hill) and Joshua Wallace (J.J. Sosa) mobilized to project today. Ryan took Josh to the excavation sites to show so that he can plan for contingencies. The excavation permits are finalized except for Utilquest. 																																			
Terry McElveen				5/06/02																															
Terry McElveen				Contractors Superintendent																															
				Date																															

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)					Date: 5/07/02 Day: Tuesday			
Contract No. N62467-98-D-0995	CTO No. 011	Location NAS Whiting Field	Project No. 151168	Report No. 009				
Contractor: CH2M HILL Constructors, Inc.			Superintendent: Terry McElveen					
AM Weather Partly Cloudy	PM Weather Partly Cloudy	Precipitation 0"	Max Temp 83°F	Min Temp 69°F				
		Was A Job Safety Meeting Held This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		CCI Hours Worked Today		20.5		
				Subcontractor Hrs Worked Today		8		
				Total Site Hours Worked Today		28.5		
		Were There Any Lost Time Accidents This Date? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total Of Hours Worked From Previous Report.		176.5		
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Cumulative Total of Hours Worked From Start Of Construction.		205		
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met?		<input checked="" type="checkbox"/> Yes		
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> N/A								
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> Chainsaw with associated safety gear								
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – Site Truck – CH2M Hill 1 – POV – CH2M Hill – 9 Hrs 1 – Site Van – J.J. Sosa – 8 Hrs								
Work Force: Name, Location or Description					Employer	Number	Trade	Hrs
Terry McElveen					CH2MHill/CCI	1	SSup	8.5
Ryan Bitely					CH2M Hill	1	QAQC	8
Beth					CH2M Hill	1		4
Joshua Wallace					JJ Sosa	1	Sup	8
Work Performed This Date & Remarks:								
<u>Site 4</u>								
<ul style="list-style-type: none"> • Sampling – Ryan and Beth obtained 2nd round of air samples from the wells, also took pressure/flow readings from SRS units as well as real time monitoring at the monitoring point wells. 								
<u>Sites 6, 16, and 38</u>								
<ul style="list-style-type: none"> • Mobilization – Toured the excavation sites again, discussed plans for work. Began working on obtaining the waste profiles for Waste Management landfill Springhill and lining out schedule for the excavations. 								
Terry McElveen							5/07/02	
Terry McElveen					Contractors Superintendent		Date	

CONTRACTOR PRODUCTION REPORT (Attach Additional Sheets If Necessary)				Date: 5/08/02 Day: Wednesday	
Contract No. N62467-98-D-0995	CTO No. 011	Location NAS Whiting Field	Project No. 151168	Report No. 010	
Contractor: CH2M HILL Constructors, Inc.			Superintendent: Terry McElveen		
AM Weather Partly Cloudy	PM Weather Partly Cloudy	Precipitation 0"	Max Temp 87°F	Min Temp 71°F	
			CCI Hours Worked Today		22
			Subcontractor Hrs Worked Today		33
			Total Site Hours Worked Today		55
			Cumulative Total Of Hours Worked From Previous Report.		205
Was A Job Safety Meeting Held This Date? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Cumulative Total of Hours Worked From Start Of Construction.		260
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Have Safety Requirements Been Met? <input checked="" type="checkbox"/> Yes
<u>List Safety Actions Taken This Date/Safety Inspections Conducted.</u> N/A					
<u>Equipment/Material Received This Date to be Incorporated in Job.</u> 1 – Rubber Tire Backhoe – J.J. Sosa 1 – Dump Truck – J.J. Sosa					
<u>Construction and Plant Equipment on Job Site, including Number of Hours Used, This Date.</u> 1 – Site Truck – CH2M Hill – 11 Hrs 1 – POV – CH2M Hill – 11 Hrs 1 – Site Van – J.J. Sosa – 11 Hrs 1 – Rental Car – J. J. Sosa – 10 Hrs 1 – Rubber Tire Backhoe – J. J. Sosa – 6 Hrs 1 – Dump Truck – J.J. Sosa – 2 Hrs					
Work Force: Name, Location or Description		Employer	Number	Trade	Hrs
Terry McElveen		CH2MHill/CCI	1	SSup	11
Ryan Bitely		CH2M Hill	1	QAQC	11
Joshua Wallace		JJ Sosa	1	Sup	11
Fred Portafe		JJ Sosa	1	Geo	11
John Staton		JJ Sosa	1	Oper	11
<u>Work Performed This Date & Remarks:</u>					
<u>Site 4</u>					
<ul style="list-style-type: none"> • Sampling – Ryan took the 3rd round of samples from the SRS units today. 					
<u>Sites 6, 16, and 38</u>					
<ul style="list-style-type: none"> • Mobilization – JJ Sosa's crew arrived on site this morning, registered with pass/ID office. Heavy equipment arrived on site 1 backhoe and 1 dump truck. • Excavation – Began work at site 16, performed clearing of the area, cut down the pine tree and small shrubs in area. Began stockpiling clean soil from the on-site borrow pit at site 16 adjacent to excavation area. 					
Terry McElveen					5/08/02
Terry McElveen		Contractors Superintendent		Date	

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/09/02	Report No:	460			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
Task/Activity/Site:	Sites 4, 6, 16, & 38					
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar			
AM Weather:	Warm, Humid, Clear, Calm	PM Weather:	Hot, Humid, Clear, Calm			
Min Temp (°F):	72	Max Temp (°F):	85			
			Yes			
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>			
	Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input checked="" type="checkbox"/>			
CCI Total Worked Hours:		28	JA Jones Total Worked Hours:			
Subcontractor(s) Total Worked Hours:		29	Total Worked Hours on Job Site This Date:			
Cumulative Total of Work Hours From Previous Report:		9,856	Total Work Hours From Start of Construction:			
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Have Safety Requirements Been Met? (If No, explain in the next box)		<input checked="" type="checkbox"/>	<input type="checkbox"/>			
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:						
The daily tailgate safety meeting was conducted with CCI and JJS personnel						
Equipment and Material Received						
Equipment / Material		Equipment No	Number/Volume/Weight			
JJS Barrow Pit Soil		N/A	15 yd ³			
Construction and Plant Equipment						
Plant/Equipment	Arrived	Departed	Safety Check Performed By	Number of Hours		
				Used	Idle	Repair
Navy SRS	In Operation			24		
Navy 500 gal. ploy tank						
Navy SAR system						
CCI Pick-up and Tools	0700	1300	TM	6		
CCI Pick-up and Tools	0930	1930	SD	10		
CH2M Hill POV	0700	1700	RB	10		
JJS Van & Tools	0700	1930	JW	12		
JJS Rental Car	0700	1200	FP	5		
JJS Chainsaw						
JJS Generator						
JJS Pressure Washer						
JJS Backhoe	0700	1930	JS	12		
JJS 5 yd ³ Dump Truck	0700	1930	JS	13		
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)						
None Noted Today						
Visitors to the Site:						
No Site Visitors Today						

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/09/02	Report No:	460			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
CCI and CH2M Hill Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Terry McElveen	CCI	18520	Super	Site Remediation	Site 16	6
Scott Dunbar	CCI	18507	Super	Site Remediation	Site 16	10
Ryan Bitely	CH2M Hill	32814	QAM	Site Remediation	Sites 4 & 16	10
Beth Liu	CH2M Hill	31158	ENG	SRS O & M	Site 4	2
Total Man-hours Today						26
Total Man-hours This Year						667
Subcontractor Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Josh Wallace	JJ Sosa	JJS-01	PM/Sup	Site Remediation	Site 16	12
Fred Portofe	JJ Sosa	JJS-02	Ops Mngr	Site Remediation	Site 16	5
John Stanton	JJ Sosa	JJS-03	EO	Site Remediation	Site 16	12
Total Man-hours Today						29
Total Man-hours This Year						263

Report Comments:

- JJS started the day by transporting backfill soil from the on base barrow pit to Site 16, approximately 15 yd³ was stockpiled at the site.
- It became apparent that JJS was having problems obtaining approval on the waste profile that they had submitted to Waste Management Springhill Landfill. Upon request CCI intervened and called Waste Management to elevate the hold, with in minutes Waste Management called JJS back with the approval.
- After Scott Dunbar had transitioned with Terry McElveen, Terry demobilized from the project.
- JJS began initial excavation at Site 16, stockpiling the excavated soil on with in the confines of the site. As expected the soil was laden with debris, of which it all appeared to be of the size that could be managed using their equipment.
- Due to extremely dry conditions, ambient dust was observed and JJS elected to upgrade to EPA Level C (i.e., Tyveck Coveralls and half-face respirator).
- JJS was advised that they were at risk for all additional soil excavated beyond the 2' bls +/- 4". It appeared as though their equipment operator was inexperienced.

Site 4

- The weekly O&M was conducted at the site, air samples were collected (See the COC for details).

Scott Dunbar

5/09/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/10/02	Report No:	461
Project Name/Location:	NAS Whiting Field	CTO No	0011
Project No.	151168	Contract No:	N62467-98-C-0095
Task/Activity/Site:	Sites 4, 6, 16, & 38		
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar
AM Weather:	Warm, Humid, Clear, Calm	PM Weather:	Hot, Humid, Clear, Calm
Min Temp (°F):	72	Max Temp (°F):	85
			Yes
			No
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>
	Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input checked="" type="checkbox"/>
CCI Total Worked Hours:	20	JA Jones Total Worked Hours:	0
Subcontractor(s) Total Worked Hours:	22	Total Worked Hours on Job Site This Date:	42
Cumulative Total of Work Hours From Previous Report:	9912	Total Work Hours From Start of Construction:	9955
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have Safety Requirements Been Met? (If No, explain in the next box)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:			
The daily tailgate safety meeting was conducted with CCI and JJS personnel			
Equipment and Material Received			
Equipment / Material	Equipment No	Number/Volume/Weight	
Loader 2 ½ yd³	N / A	1ea	
55 gallon drums		4ea	
Brinson Sand & Gravel (BSG) Non-Haz Hauler 20 yd³ Dump Trailers		4ea	
Construction and Plant Equipment			
Plant/Equipment	Arrived	Departed	Safety Check Performed By
			Number of Hours
			Used
			Idle
			Repair
Navy SRS	In Operation		24
Navy 500 gal. ploy tank			
Navy SAR system			
CCI Pick-up and Tools	0700	1600	SD
CH2M Hill POV	0700	1830	RB
JJS Van & Tools	0700	1830	JW
JJS Chainsaw			
JJS Generator			
JJS Pressure Washer			
JJS Backhoe	0700	1830	JS
JJS 5 yd³ Dump Truck	0700	1830	JS
JJS Loader 2 ½ yd³	1050	1830	JS
JJS 55-gal. Drums			
BSG 20 yd³ Dump Trailers			
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)			
None Noted Today			
Visitors to the Site:			
DJ. Mathews, NAS Whiting Field Environmental			
CCI and CH2M Hill Man-hours			

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:		05/10/02		Report No:		461	
Project Name/Location:		NAS Whiting Field		CTO No		0011	
Project No.		151168		Contract No:		N62467-98-C-0095	
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked	
Scott Dunbar	CCI	18507	Super	Site Remediation	Site 16	9	
Ryan Bitely	CH2M Hill	32814	QAM	Site Remediation	Site 16	11	
Beth Liu	CH2M Hill	31158	ENG	SRS O & M	Site 4	0	
Total Man-hours Today						20	
Total Man-hours This Year						687	
Subcontractor Man-hours							
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked	
Josh Wallace	JJ Sosa	JJS-01	PM/Sup	Site Remediation	Site 16	11	
John Stanton	JJ Sosa	JJS-03	EO	Site Remediation	Site 16	11	
Total Man-hours Today						22	
Total Man-hours This Year						285	

Report Comments:

- JJS resumed excavation at Site 16, stockpiling the excavated soil on with in the confines of the site.
- JJS began loading Brinson Sand & Gravel trucks upon their arrival to the site, however, the rental loader hadn't arrived yet and excavation activities had to stop to load the trucks. Once the rental loader did arrive at the site excavation still was on hold as only one JJS personnel two people was qualified to operate heavy equipment.
- CCI having watched JJS's operations over the last day advised JJS verbally of their non-performance/non-conformance. It was clear that they were clearly under staffed with inexperienced personnel and that several discrepancies must be resolved for them to finish the project. The discrepancies included:
 - Spilling contaminants outside the exclusion zone, this would have to be cleaned up and would result in additional soil removed and time to remove it.
 - Destroying the excavation limit markers, this is their only control of the prescribed excavation limits.
 - Lack of trained manpower to support the operation, causing un-due delays and additional soil being removed beyond the scope of work.
 - Poor pre-mobilization preparation, resulting disorganized and slow operations.
- At JJS request, CCI re-established the excavation limit boundary markers scaling off work plan drawings.
- JJS convened a conference call between Fred Portofe & Richard Perry with JJS and Scott Dunbar. JJS expressed their concern with their poor performance and said that they would be making personnel changes to improve the situation.
- Amy Twitty and Mike Rossman were informed of the above information.
- JJS had 4 trucks at the site today to load with soil but due to their inability to load the trucks one left without a load. 3 trucks were loaded with approximately 45 tons of soil for disposal at WM Springhill Landfill.
- Early in the afternoon when JJS resumed excavation at Site 16 they ran the backhoe out of fuel and were unable to restart it. They called in a hertz mechanic to come and get the backhoe restarted for them.

Scott Dunbar

5/10/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/11/02	Report No:	462			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
Task/Activity/Site:	Sites 4, 6, 16, & 38					
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar			
AM Weather:	Warm, Humid, Clear, Calm	PM Weather:	Hot, Humid, Clear, Calm			
Min Temp (°F):	75	Max Temp (°F):	89			
			Yes			
			No			
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>			
	Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input checked="" type="checkbox"/>			
CCI Total Worked Hours:		6	JA Jones Total Worked Hours:			
Subcontractor(s) Total Worked Hours:		12	Total Worked Hours on Job Site This Date:			
Cumulative Total of Work Hours From Previous Report:		9955	Total Work Hours From Start of Construction:			
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Have Safety Requirements Been Met? (If No, explain in the next box)		<input checked="" type="checkbox"/>	<input type="checkbox"/>			
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:						
The daily tailgate safety meeting was conducted with CCI and JJS personnel						
Equipment and Material Received						
Equipment / Material		Equipment No	Number/Volume/Weight			
Brinson Sand & Gravel (BSG) Non-Haz Hauler 18 yd³ Dump Trailers			2ea			
Construction and Plant Equipment						
Plant/Equipment	Arrived	Departed	Safety Check Performed By	Number of Hours		
				Used	Idle	Repair
Navy SRS	In Operation			24		
Navy 500 gal. ploy tank						
Navy SAR system						
CCI Pick-up and Tools	0600	1200	SD	6		
CH2M Hill POV			RB	0		
JJS Van & Tools	0600	1200	JW	12		
JJS Chainsaw						
JJS Generator						
JJS Pressure Washer						
JJS Backhoe	0600	1200	JS	6		
JJS 5 yd³ Dump Truck						
JJS Loader 2 ½ yd³	0600	1200	JS	6		
JJS 55-gal. Drums					4	
BSG 18 yd³ Dump Trailers				1	1	
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)						
None Noted Today						
Visitors to the Site:						
None Noted Today						

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/11/02	Report No:	462			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
CCI and CH2M Hill Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Scott Dunbar	CCI	18507	Super	Site Remediation	Site 16	6
Ryan Bitely	CH2M Hill	32814	QAM	Site Remediation	Site 16	0
Beth Liu	CH2M Hill	31158	ENG	SRS O & M	Site 4	0
Total Man-hours Today						6
Total Man-hours This Year						693
Subcontractor Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Josh Wallace	JJ Sosa	JJS-01	PM/Sup	Site Remediation	Site 16	6
John Stanton	JJ Sosa	JJS-03	EO	Site Remediation	Site 16	6
Total Man-hours Today						12
Total Man-hours This Year						297

Report Comments:

- JJS resumed excavation at Site 16, stockpiling the excavated soil on with in the confines of the site.
- JJS began loading Brinson Sand & Gravel trucks upon their arrival to the site, however, site excavation was on hold as only one JJS personnel two people was qualified to operate heavy equipment.
- JJS had 2 trucks at the site today to load with soil but due to their inability to load the trucks one left without a load. The loaded truck departed site with approximately 18 tons of soil, for disposal at WM Springhill Landfill.
- JJS decontaminated their equipment in preparation for moving over to Site 38, first thing Monday morning.

Scott Dunbar

5/11/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/12/02	Report No:	463
Project Name/Location:	NAS Whiting Field	CTO No	0011
Project No.	151168	Contract No:	N62467-98-C-0095
Task/Activity/Site:	Sites 4, 6, 16, & 38		
Site Superintendent:		Site Safety Officer:	
AM Weather:		PM Weather:	
Min Temp (°F):		Max Temp (°F):	
			Yes
			No
	Was A Job Safety Meeting Held This Date? <small>(If Yes, attach copy of the meeting minutes)</small>		<input type="checkbox"/> <input checked="" type="checkbox"/>
	Were There Any Lost Time Accidents This Date? <small>(If Yes, attach copy of completed OSHA report)</small>		<input type="checkbox"/> <input checked="" type="checkbox"/>
CCI Total Worked Hours:		JA Jones Total Worked Hours:	
		0	
Subcontractor(s) Total Worked Hours:		Total Worked Hours on Job Site This Date:	
Cumulative Total of Work Hours From Previous Report:		Total Work Hours From Start of Construction:	
9973		9973	
Was Trenching/Scaffold/HV Electrical/High Work Done? <small>(If Yes, attach statement or checklist showing inspection performed)</small>			<input type="checkbox"/> <input checked="" type="checkbox"/>
Was Hazardous Material/Waste Released Into The Environment? <small>(If Yes, attach description of incident and proposed action)</small>			<input type="checkbox"/> <input checked="" type="checkbox"/>
Have Safety Requirements Been Met? <small>(If No, explain in the next box)</small>			<input checked="" type="checkbox"/> <input type="checkbox"/>
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:			
No Site Activity Today			
Equipment and Material Received			
Equipment / Material		Equipment No	Number/Volume/Weight
Construction and Main Equipment			
Plant/Equipment	Arrived	Departed	Safety Check Performed By
Navy SRS	In Operation		24
Navy 500 gal. ploy tank			
Navy SAR system			
Changed Conditions/Delays/Conflicts Encountered: <small>(List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)</small>			
None Noted Today			
Visitors to the Site:			
None Noted Today			
Total and CH2M Hill Man-hours			
Employee	Employer	Employee No.	Title/Trade
			Work Performed
			Work Location
			Hours Worked
Total Man-hours Today			0
Total Man-hours This Year			693
Subcontractor Man-hours			
Employee	Employer	Employee No.	Title/Trade
			Work Performed
			Work Location
			Hours Worked
Total Man-hours Today			0
Total Man-hours This Year			297

Report Comments:

- No Site Activity Today.

Scott Dunbar

5/12/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/13/02	Report No:	464			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
Task/Activity/Site:	Sites 4, 6, 16, & 38					
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar			
AM Weather:	Warm, Humid, Clear, Calm	PM Weather:	Hot, Humid, Clear, Calm			
Min Temp (°F):	75	Max Temp (°F):	89			
			Yes			
			No			
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>			
	Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input checked="" type="checkbox"/>			
CCI Total Worked Hours:	21	JA Jones Total Worked Hours:	0			
Subcontractor(s) Total Worked Hours:	24	Total Worked Hours on Job Site This Date:	45			
Cumulative Total of Work Hours From Previous Report:	9973	Total Work Hours From Start of Construction:	10018			
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)		<input type="checkbox"/>	<input checked="" type="checkbox"/>			
Have Safety Requirements Been Met? (If No, explain in the next box)		<input checked="" type="checkbox"/>	<input type="checkbox"/>			
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:						
The daily tailgate safety meeting was conducted with CCI and JJS personnel						
Equipment and Material Received						
Equipment / Material		Equipment No	Number/Volume/Weight			
Brinson Sand & Gravel (BSG) Non-Haz Hauler 18 yd³ Dump Trailers			1ea			
Construction and Plant Equipment						
Plant/Equipment	Arrived	Departed	Safety Check Performed By	Number of Hours		
				Used	Idle	Repair
Navy SRS	In Operation			24		
Navy 500 gal. ploy tank						
Navy SAR system						
CCI Pick-up and Tools	0700	1900	SD	12		
CH2M Hill POV	0700	1600	RB	9		
JJS Van & Tools	0700	1900	JW	12		
JJS Chainsaw						
JJS Generator						
JJS Pressure Washer						
JJS Backhoe	0700	1900	RS	12		
JJS 5 yd³ Dump Truck	1200	1900	RS	7		
JJS Loader 2 ½ yd³	0700	1900	RS	12		
JJS 55-gal. Drums					4	
BSG 18 yd³ Dump Trailers				1		
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)						
None Noted Today						
Visitors to the Site:						
None Noted Today						

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/13/02	Report No:	464			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
CCI and CH2M Hill Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Scott Dunbar	CCI	18507	Super	Site Remediation	Site 38	12
Ryan Bitely	CH2M Hill	32814	QAM	Site Remediation	Site 38	9
Beth Liu	CH2M Hill	31158	ENG	SRS O & M	Site 4	0
Total Man-hours Today						21
Total Man-hours This Year						714
Subcontractor Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Josh Wallace	JJ Sosa	JJS-01	PM/Sup	Site Remediation	Site 16	12
Rockie Stoeffler	JJ Sosa	JJS-04	EO	Site Remediation	Site 16	12
Total Man-hours Today						24
Total Man-hours This Year						321

Report Comments:

- As promised JJS replaced their equipment operator over the weekend. The new operator Rockie Stoeffler was provided a safety plan orientation and AHA review before starting work.
- JJS dug out the 2 small pits at Site 38, these pits were roughly 10' x 10' x 2' on the side of a slope. Both pits were completely excavated, backfilled, and covered with sod today.
- JJS loaded one Brinson Sand & Gravel trucks with soil from Site 38. The truck departed site with approximately 18 tons of soil, for disposal at WM Springhill Landfill.
- JJS decontaminated their equipment in preparation for moving back over to Site 16, first thing tomorrow morning.

Scott Dunbar

5/13/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/14/02	Report No:	465
Project Name/Location:	NAS Whiting Field	CTO No	0011
Project No.	151168	Contract No:	N62467-98-C-0095
Task/Activity/Site:	Sites 4, 6, 16, & 38		
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar
AM Weather:	Warm, Humid, Clear, Calm	PM Weather:	Hot, Humid, Clear, Calm
Min Temp (°F):	73	Max Temp (°F):	93
			Yes
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>
	Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input checked="" type="checkbox"/>
CCI Total Worked Hours:	22	JA Jones Total Worked Hours:	0
Subcontractor(s) Total Worked Hours:	24	Total Worked Hours on Job Site This Date:	46
Cumulative Total of Work Hours From Previous Report:	10018	Total Work Hours From Start of Construction:	10064
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have Safety Requirements Been Met? (If No, explain in the next box)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:			
The daily tailgate safety meeting was conducted with CCI and JJS personnel			
Equipment and Material Received			
Equipment / Material		Equipment No	Number/Volume/Weight
Backfill soil from on base barrow pit			30 yd ³
Brinson Sand & Gravel (BSG) Non-Haz Hauler 20 yd ³ Dump Trailers			1ea
Construction and Plant Equipment			
Plant/Equipment	Arrived	Departed	Safety Check Performed By
			Number of Hours
			Used
			Idle
			Repair
Navy SRS	In Operation		24
Navy 500 gal. ploy tank			
Navy SAR system			
CCI Pick-up and Tools	0700	1700	SD
CH2M Hill POV	0700	1900	RB
JJS Van & Tools	0700	1900	JW
JJS Chainsaw			
JJS Generator			
JJS Pressure Washer			
JJS Backhoe	0700	1900	RS
JJS 5 yd ³ Dump Truck	1200	1900	RS
JJS Loader 2 ½ yd ³	0700	1900	RS
JJS 55-gal. Drums			
Backfill Soil			30 yd ³
BSG 18 yd ³ Dump Trailers			1
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)			
None Noted Today			
Visitors to the Site:			
Mr. Jim Holland, NAS Whiting Field Environmental			

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/14/02	Report No:	465			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
CCI and CH2M Hill Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Scott Dunbar	CCI	18507	Super	Site Remediation	Site 38	10
Ryan Bitely	CH2M Hill	32814	QAM	Site Remediation	Site 38	12
Beth Liu	CH2M Hill	31158	ENG	SRS O & M	Site 4	0
Total Man-hours Today						22
Total Man-hours This Year						736
Subcontractor Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Josh Wallace	JJ Sosa	JJS-01	PM/Sup	Site Remediation	Site 16	12
Rockie Stoeffler	JJ Sosa	JJS-04	EO	Site Remediation	Site 16	12
Total Man-hours Today						24
Total Man-hours This Year						345

Report Comments:

- Due to extensive water accumulation at Site 6, JJS elected to switch operation back to Site 16.
- JJS finished the excavation at Site 16 today, however it is difficult to say how grossly they over excavated they area.
- JJS loaded one Brinson Sand & Gravel trucks with soil from Site 16. The truck departed site with approximately 18 tons of soil, for disposal at WM Springhill Landfill.
- JJS decontaminated their equipment and began backfilling Site 16.

Scott Dunbar

5/14/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/15/02	Report No:	466			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
Task/Activity/Site:	Sites 4, 6, 16, & 38					
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar			
AM Weather:	Warm, Humid, Clear, Calm	PM Weather:	Hot, Humid, Clear, Calm			
Min Temp (°F):	76	Max Temp (°F):	88			
			Yes	No		
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>	<input type="checkbox"/>		
	Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input type="checkbox"/>	<input checked="" type="checkbox"/>		
CCI Total Worked Hours:		27	JA Jones Total Worked Hours:	0		
Subcontractor(s) Total Worked Hours:		29	Total Worked Hours on Job Site This Date:	56		
Cumulative Total of Work Hours From Previous Report:		10064	Total Work Hours From Start of Construction:	10120		
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)			<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)			<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Have Safety Requirements Been Met? (If No, explain in the next box)			<input checked="" type="checkbox"/>	<input type="checkbox"/>		
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:						
The daily tailgate safety meeting was conducted with CCI and JJS personnel						
Equipment and Material Received						
Equipment / Material		Equipment No	Number/Volume/Weight			
Backfill soil from on base barrow pit			26 yd ³			
Brinson Sand & Gravel (BSG) Non-Haz Hauler 20 yd ³ Dump Trailers			2ea			
Construction and Plant Equipment						
Plant/Equipment	Arrived	Departed	Safety Check Performed By	Number of Hours		
				Used	Idle	Repair
Navy SRS	In Operation			24		
Navy 500 gal. ploy tank						
Navy SAR system						
CCI Pick-up and Tools	0630	2100	SD	14 ½		
CH2M Hill POV	0630	1900	RB	10 ½		
JJS Van & Tools	0630	2100	JW	14 ½		
JJS Chainsaw						
JJS Generator						
JJS Pressure Washer						
JJS Backhoe	0630	2100	RS	14 ½		
JJS 5 yd ³ Dump Truck	0630	2000	RS	8		
JJS Loader 2 ½ yd ³	0630	2100	RS	14 ½		
JJS 55-gal. Drums					4	
Backfill Soil				26 yd ³		
BSG 18 yd ³ Dump Trailers				2		
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)						
None Noted Today						
Visitors to the Site:						
None Noted Today						

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/15/02	Report No:	466
Project Name/Location:	NAS Whiting Field	CTO No	0011
Project No.	151168	Contract No:	N62467-98-C-0095
CCI and CH2M Hill Man-hours			
Employee	Employer	Employee No.	Title/Trade
Scott Dunbar	CCI	18507	Super
Ryan Bitely	CH2M Hill	32814	QAM
Beth Liu	CH2M Hill	31158	ENG
			Work Performed
			Site Remediation
			Site Remediation
			SRS O & M
			Work Location
			Site 38
			Sites 4 & 38
			Site 4
			Hours Worked
			14 ½
			10 ½
			2
Total Man-hours Today			27
Total Man-hours This Year			738
Subcontractor Man-hours			
Employee	Employer	Employee No.	Title/Trade
Josh Wallace	JJ Sosa	JJS-01	PM/Sup
Rockie Stoeffler	JJ Sosa	JJS-04	EO
			Work Performed
			Site Remediation
			Site Remediation
			Work Location
			Site 16
			Site 16
			Hours Worked
			14 ½
			14 ½
Total Man-hours Today			29
Total Man-hours This Year			374

Report Comments:

- JJS excavated Site 6 to the prescribed limits, upon completion of the excavation, the area was backfilled and compacted, finish graded and centipede sod was installed to cover the disturbed areas.
- JJS loaded two Brinson Sand & Gravel trucks with soil from Site 6. The truck departed site with approximately 40 tons of soil, for disposal at WM Springhill Landfill.
- JJS decontaminated their equipment prior to backfilling the excavation at Site 6.

Site 4

- The weekly O & M was conducted on the SRS units. Monitoring was conducted at the micro monitoring points, as well as, the pressures and flow rates of the treatment units recorded.

Scott Dunbar

5/15/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT

(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/16/02	Report No:	467
Project Name/Location:	NAS Whiting Field	CTO No	0011
Project No.	151168	Contract No:	N62467-98-C-0095
Task/Activity/Site:	Sites 4, 6, 16, & 38		
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar
AM Weather:	Warm, Humid, Cloudy, Calm	PM Weather:	Hot, Humid, Cloudy, Calm
Min Temp (°F):	68	Max Temp (°F):	78
			Yes
			No
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>
			<input type="checkbox"/>
			<input checked="" type="checkbox"/>
	Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input type="checkbox"/>
CCI Total Worked Hours:		22	JA Jones Total Worked Hours:
Subcontractor(s) Total Worked Hours:		22	Total Worked Hours on Job Site This Date:
Cumulative Total of Work Hours From Previous Report:		10120	Total Work Hours From Start of Construction:
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)			<input type="checkbox"/>
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)			<input type="checkbox"/>
Have Safety Requirements Been Met? (If No, explain in the next box)			<input checked="" type="checkbox"/>
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:			
The daily tailgate safety meeting was conducted with CCI and JJS personnel			
Equipment and Material Received			
Equipment / Material		Equipment No	Number/Volume/Weight
Backfill soil from on base barrow pit			45 yd ³
Brinson Sand & Gravel (BSG) Non-Haz Hauler 20 yd ³ Dump Trailers			1 ea
Construction and Plant Equipment			
Plant/Equipment	Arrived	Departed	Safety Check Performed By
Navy SRS	In Operation		
Navy 500 gal. ploy tank			
Navy SAR system			
CCI Pick-up and Tools	0600	1700	SD
CH2M Hill POV	0600	1700	RB
JJS Van & Tools	0600	1700	JW
JJS Chainsaw			
JJS Generator			
JJS Pressure Washer	1400	1700	JW
JJS Backhoe	0600	1700	RS
JJS 5 yd ³ Dump Truck	0600	1700	RS
JJS Loader 2 ½ yd ³	0600	1700	RS
JJS 55-gal. Drums			
Backfill Soil			
BSG 18 yd ³ Dump Trailers			
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)			
None Noted Today			
Visitors to the Site:			
None Noted Today			

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/16/02	Report No:	467			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
CCI and CH2M Hill Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Scott Dunbar	CCI	18507	Super	Site Remediation	Sites 16 & 38	14 ½
Ryan Bitely	CH2M Hill	32814	QAM	Site Remediation	Sites 16 & 38	10 ½
Beth Liu	CH2M Hill	31158	ENG	SRS O & M	Site 4	0
Total Man-hours Today						25
Total Man-hours This Year						736
Subcontractor Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Josh Wallace	JJ Sosa	JJS-01	PM/Sup	Site Remediation	Sites 16 & 38	14 ½
Rockie Stoeffler	JJ Sosa	JJS-04	EO	Site Remediation	Sites 16 & 38	14 ½
Total Man-hours Today						29
Total Man-hours This Year						374

Report Comments:

- JJS loaded one Brinson Sand & Gravel trucks with soil from Site 16. The truck departed site with approximately 20 tons of soil, for disposal at WM Springhill Landfill.
- The excavation at Site 16 was nearly backfilled and compacted, however it was lacking about 15 yd³ of soil.
- JJS installed an additional pallet of sod at Site 6 to cover the area outside the excavation that had been disturbed.
- JJS Pressure washed their equipment in preparation for demobilization.

Scott Dunbar

5/16/2002

Site Superintendent's Signature

Date

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/17/02	Report No:	468
Project Name/Location:	NAS Whiting Field	CTO No	0011
Project No.	151168	Contract No:	N62467-98-C-0095
Task/Activity/Site:	Sites 4, 6, 16, & 38		
Site Superintendent:	Scott Dunbar	Site Safety Officer:	Scott Dunbar
AM Weather:	Warm, Humid, Cloudy, Calm	PM Weather:	Hot, Humid, Cloudy, Calm
Min Temp (°F):	66	Max Temp (°F):	85
			Yes
			No
	Was A Job Safety Meeting Held This Date? (If Yes, attach copy of the meeting minutes)		<input checked="" type="checkbox"/>
Were There Any Lost Time Accidents This Date? (If Yes, attach copy of completed OSHA report)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
CCI Total Worked Hours:	10	JA Jones Total Worked Hours:	0
Subcontractor(s) Total Worked Hours:	10	Total Worked Hours on Job Site This Date:	20
Cumulative Total of Work Hours From Previous Report:	10164	Total Work Hours From Start of Construction:	10184
Was Trenching/Scaffold/HV Electrical/High Work Done? (If Yes, attach statement or checklist showing inspection performed)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Was Hazardous Material/Waste Released Into The Environment? (If Yes, attach description of incident and proposed action)		<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have Safety Requirements Been Met? (If No, explain in the next box)		<input checked="" type="checkbox"/>	<input type="checkbox"/>
List Safety Violations, Corrective Instructions Given, Corrective Actions Taken and Results of Safety Inspections Conducted:			
The daily tailgate safety meeting was conducted with CCI and JJS personnel			
Equipment and Material Received			
Equipment / Material		Equipment No	Number/Volume/Weight
Backfill soil from on base barrow pit			20 yd ³
Construction and Plant Equipment			
Plant/Equipment	Arrived	Departed	Safety Check Performed By
			Number of Hours
			Used
			Idle
			Repair
Navy SRS	In Operation		24
Navy 500 gal. ploy tank			
Navy SAR system			
CCI Pick-up and Tools	0700	1200	SD
CH2M Hill POV	0700	1200	RB
JJS Van & Tools	0700	1200	JW
JJS Chainsaw			
JJS Generator			
JJS Pressure Washer			
JJS Backhoe	0700	1200	RS
JJS 5 yd ³ Dump Truck	0700	1200	RS
JJS Loader 2 ½ yd ³	0700	1200	RS
JJS 55-gal. Drums			2
Backfill Soil			20 yd ³
Changed Conditions/Delays/Conflicts Encountered: (List any conflicts with the delivery order [i.e., scope of work and/or drawings], delays to the project attributable to site, and weather conditions, etc.)			
None Noted Today			
Visitors to the Site:			
None Noted Today			

CONTRACTOR PRODUCTION REPORT
(ATTACH ADDITIONAL SHEETS AS NECESSARY)

Date:	05/17/02	Report No:	468			
Project Name/Location:	NAS Whiting Field	CTO No	0011			
Project No.	151168	Contract No:	N62467-98-C-0095			
CCI and CH2M Hill Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Scott Dunbar	CCI	18507	Super	Site Remediation	Sites 6, 16, 38	5
Ryan Bitely	CH2M Hill	32814	QAM	Site Remediation	Sites 6, 16, 38	5
Beth Liu	CH2M Hill	31158	ENG	SRS O & M	Site 4	0
Total Man-hours Today						10
Total Man-hours This Year						748
Subcontractor Man-hours						
Employee	Employer	Employee No.	Title/Trade	Work Performed	Work Location	Hours Worked
Josh Wallace	JJ Sosa	JJS-01	PM/Sup	Site Remediation	Sites 6, 16, 38	5
Rockie Stoeffler	JJ Sosa	JJS-04	EO	Site Remediation	Sites 6, 16, 38	5
Total Man-hours Today						10
Total Man-hours This Year						384

Report Comments:

- JJS finished backfilling, compacting and grading Site 16. The area was cleaned up and prepared for demobilization.
- JJS fertilized the newly installed sod with triple 13 lawn fertilizer.
- JJS demobilized the project

Scott Dunbar

5/17/2002

Site Superintendent's Signature

Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

Date:	05/01/02	Report No:	214
Project Name/Location:	NAS Whiting Field	CTO No	011
Project No.	151168	Contract No:	N62467-98-D-0995
Task/Activity/Site:	Site 4 Third Quarter Soil Sampling; push SVE wells to deep interval		
Project QC Manager:	Ryan Bitely	QC Inspector:	N/A

DEFINABLE FEATURES OF WORK STATUS

DFOW No.	Definable Feature Of Work (Attach Checklist for Each Definable Feature of Work)	Preparatory	Initial	Follow-Up
1	Soil Sampling	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Push SVE wells from intermediate to deep interval	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Vapor Sampling	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFINABLE FEATURE OF WORK COMMENTS

DFOW No.	Phase	Comment/Finding/Action
1	Follow-up	Set up on 20S and begin push to 18', collect samples 011-04-MP-20S-S-18'-Q3, 011-04-MP-20S-43'-Q3, 011-04-MP-20S-S-72'-Q3, and collect pre- and post- equipment blanks, ship to lab
2	Follow-up	Remove SRS units and use DPT rig to push variable depth inner wells from intermediate to deep intervals in each of the five SRS locations; cut well stick-up to appropriate height to fit to SRS blower; used respirators for last well push due to increased vapor output at irregular and unsustained high levels
3	Follow-up	Collect vapor samples from 04-TW-01 and 04-TW-02 from the intermediate level before pushing to the deep interval

SAMPLING / TESTING PERFORMED

Sampling/Testing Performed	Sampling/Testing Company	Site Technician
Soil Sampling / Vapor Sampling	Accutest	Ryan Bitely

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Conduct third quarter soil sampling at site 4; collect samples 011-04-MP-30E-S-72'-Q3, 011-04-MP-05N-S-18'-Q3, 011-04-MP-05N-S-38'-Q3 (011-04-FD1-S-100'-Q3), 011-04-MP-05N-S-66'-Q3, 011-04-MP-10W-S-18'-Q3 (011-04-FD2-S-100'-Q3), 011-04-MP-10W-S-43'-Q3, AND 011-04-MP-10W-S-72'-Q3, and PRE- and POST- blanks			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/01/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

Date:	05/02/02	Report No:	215
Project Name/Location:	NAS Whiting Field	CTO No	011
Project No.	151168	Contract No:	N62467-98-D-0995
Task/Activity/Site:	Re-install SRS units on pads; begin dig permit for JJSA		
Project QC Manager:	Ryan Bitely	QC Inspector:	N/A

DEFINABLE FEATURES OF WORK STATUS				
DFOW No.	Definable Feature Of Work (Attach Checklist for Each Definable Feature of Work)	Preparatory	Initial	Follow-Up
1	Re-install SRS units on pads	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Begin Dig Permit for JJSA	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFINABLE FEATURE OF WORK COMMENTS		
DFOW No.	Phase	Comment/Finding/Action
1	Follow-up	Site 4 Replace SRS units onto concrete pads and clamp stick-up to blowers; attach bolts and electrical wiring
2	Follow-up	Begin dig permit process for Sites 6, 16, and 38 excavation to begin next week

SAMPLING / TESTING PERFORMED		
Sampling/Testing Performed	Sampling/Testing Company	Site Technician
N/A	N/A	N/A

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Replace SRS units on wells and re-attach blowers to stick-up; begin dig permit process for excavations next week at Sites 6, 16, and 38			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/02/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Continue and complete dig permit process for Sites 6, 16, and 38; change Site 4 blower directions on 04-TW-01, 03, 04, and 05 to pull direction for 3-day EPA testing			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/03/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
No Site Activities Conducted today			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/04/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
No Site Activities Conducted today			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:

N/A

Soil Stockpiles

	Yes	No
Liner secure and intact?	<input type="checkbox"/>	<input type="checkbox"/>
Cover in place and secure (as necessary)?	<input type="checkbox"/>	<input type="checkbox"/>

If any of these questions were marked NO, please comment:

N/A

Accumulation Area

	Yes	No
Is the accumulation area free of severe structural deterioration?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is there adequate aisle space between drums to allow unobstructed movement?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If any of these questions were marked NO, please comment:

N/A

Emergency Response Equipment

		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If any of these questions were marked NO, please comment:

N/A

Corrective Action

Describe actions taken to correct any deficiency noted above:

N/A

On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.

Ryan Bitely

Project QC Manager' Signature

05/05/02

Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Discuss upcoming Excavation with J. J. Sosa representative, Josh Wallace; collect five tedlar vapor samples for beginning of three day EPA sampling			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/06/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

Date:	05/07/02	Report No:	220
Project Name/Location:	NAS Whiting Field	CTO No	011
Project No.	151168	Contract No:	N62467-98-D-0995
Task/Activity/Site:	Continue three day EPA vapor sampling at Site 4; measure flow rates and pressures, download data		
Project QC Manager:	Ryan Bitely	QC Inspector:	N/A

DEFINABLE FEATURES OF WORK STATUS

DFOW No.	Definable Feature Of Work (Attach Checklist for Each Definable Feature of Work)	Preparatory	Initial	Follow-Up
1	Continue three day EPA vapor sampling at Site 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Measure Pressures and Flow Rates	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3	Download data from datalogger	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Discuss excavation with J. J. Sosa	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFINABLE FEATURE OF WORK COMMENTS

DFOW No.	Phase	Comment/Finding/Action
1	Follow-up	Continue EPA three day vapor sampling event at Site 4
2	Follow-up	Measure flow rates and pressures at Site 4
3	Follow-up	Download data from datalogger
4	Follow-up	Discuss upcoming excavation with Josh Wallace from J. J. Sosa

SAMPLING / TESTING PERFORMED

Sampling/Testing Performed	Sampling/Testing Company	Site Technician
Vapor Testing	Accutest	Ryan Bitely

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list:: N/A			
REPORT COMMENTS			
Discuss upcoming Excavation with J. J. Sosa representative, Josh Wallace; collect five tedlar vapor samples for beginning of three day EPA sampling; download data from datalogger; measure pressures and flow rates at site 4			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/07/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

Date:	05/08/02	Report No:	221
Project Name/Location:	NAS Whiting Field	CTO No	011
Project No.	151168	Contract No:	N62467-98-D-0995
Task/Activity/Site:	Begin Excavation at Site 16; Complete three day EPA sampling at Site 4		
Project QC Manager:	Ryan Bitely	QC Inspector:	N/A

DEFINABLE FEATURES OF WORK STATUS

DFOW No.	Definable Feature Of Work (Attach Checklist for Each Definable Feature of Work)	Preparatory	Initial	Follow-Up
1	Begin excavation at Site 16	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Complete three day EPA sampling at Site 4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFINABLE FEATURE OF WORK COMMENTS

DFOW No.	Phase	Comment/Finding/Action
1	Follow-up	J. J. Sosa begins excavation at Site 16; Hertz delivers back-hoe and dump truck to site, loader not delivered; JJSA begins clearing site of brush and debris; delineate site boundaries and cut down single pine in center of site using chain saw with protective equipment; complete day by transporting clean fill from borrow pit to site staging area
2	Follow-up	Conclude three day EPA sampling at site 4

SAMPLING / TESTING PERFORMED

Sampling/Testing Performed	Sampling/Testing Company	Site Technician
Vapor Testing	Accutest	Ryan Bitely

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Begin Site 16 excavation; clear site of debris and shrubs, cut down center pine at site; stage clean fill on-site for backfill; complete			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		<i>Yes</i>	<i>No</i>	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		<i>Yes</i>	<i>No</i>	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		<i>Yes</i>	<i>No</i>	<i>NA</i>
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/08/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list:. N/A			
REPORT COMMENTS			
Begin Site 16 excavation; clear site of debris and shrubs, cut down center pine at site; stage clean fill on-site for backfill; complete			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/09/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Excavating @ Site 16. Re-delineate Site 16 excavation limits.			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		<i>Yes</i>	<i>No</i>	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		<i>Yes</i>	<i>No</i>	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		<i>Yes</i>	<i>No</i>	<i>NA</i>
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/10/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list:: N/A			
REPORT COMMENTS			
Excavating @ Site 16. JJS continue to load Brinson Sand & Gravel trucks and delivering it to WM Springhill Landfill for disposal.			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/11/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
No Site Activities Conducted today			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/12/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Excavating and Backfill of Excavation @Site 38. JJS dug out the 2 small pits at the site, backfilled and covered the pits with sod. JJS loaded one Brinson Sand & Gravel truck with soil from the site and delivered it at WM Springhill Landfill for disposal.			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/13/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

Date:	05/14/02	Report No:	225
Project Name/Location:	NAS Whiting Field	CTO No	011
Project No.	151168	Contract No:	N62467-98-D-0995
Task/Activity/Site:	Excavation of Contaminated Soil; Backfill of Excavation		
Project QC Manager:	Ryan Bitely	QC Inspector:	N/A

DEFINABLE FEATURES OF WORK STATUS				
DFOW No.	Definable Feature Of Work (Attach Checklist for Each Definable Feature of Work)	Preparatory	Initial	Follow-Up
1	Excavation of Contaminated Soil	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Backfill of Excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFINABLE FEATURE OF WORK COMMENTS		
DFOW No.	Phase	Comment/Finding/Action
1	Follow-Up	Continue excavation of contaminated soil @ Site 16. JJS loaded Brinson Sand & Gravel trucks (how many?) with soil from Site 16. The truck departed the site for disposal at WM Springhill Landfill.
2	Follow-up	

SAMPLING / TESTING PERFORMED		
Sampling/Testing Performed	Sampling/Testing Company	Site Technician
N/A	N/A	N/A

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Excavation of contaminated soil and backfill of excavation @Site 16. Continue excavation of contaminated soil and backfill excavation @ Site 16. Finished the excavation at Site 16 and began to backfill. JJS loaded Brinson Sand & Gravel trucks with soil from Site 16. The truck departed the site for disposal at WM Springhill Landfill.			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/14/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

Date:	5/15/2002	Report No:	226
Project Name/Location:	NAS Whiting Field	CTO No	011
Project No.	151168	Contract No:	N62467-98-D-0995
Task/Activity/Site:	Excavation Of Contaminated Soil. Backfill of Excavation.		
Project QC Manager:	Ryan Bitely	QC Inspector:	N/A

DEFINABLE FEATURES OF WORK STATUS

DFOW No.	Definable Feature Of Work (Attach Checklist for Each Definable Feature of Work)	Preparatory	Initial	Follow-Up
1	Excavation of Contaminated Soil	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Backfill of Excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFINABLE FEATURE OF WORK COMMENTS

DFOW No.	Phase	Comment/Finding/Action
	Follow-Up	Continue excavation of contaminated soil and backfill excavation @ Site 6. The area was backfilled, compacted, and finish graded. Centipede sod was used to cover the excavated area.

SAMPLING / TESTING PERFORMED

Sampling/Testing Performed	Sampling/Testing Company	Site Technician
N/A	N/A	N/A

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Excavation of contaminated soil and backfill of excavation @ Site 6. Site 6 was backfilled, compacted, and finish graded. Centipede sod was used to cover the excavated area.			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		<i>Yes</i>	<i>No</i>	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		<i>Yes</i>	<i>No</i>	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		<i>Yes</i>	<i>No</i>	<i>NA</i>
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/15/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

Date:	5/16/2002	Report No:	227
Project Name/Location:	NAS Whiting Field	CTO No	011
Project No.	151168	Contract No:	N62467-98-D-0995
Task/Activity/Site:	Backfill of Excavation.		
Project QC Manager:	Ryan Bitely	QC Inspector:	N/A

DEFINABLE FEATURES OF WORK STATUS				
DFOW No.	Definable Feature Of Work (Attach Checklist for Each Definable Feature of Work)	Preparatory	Initial	Follow-Up
1	Backfill of Excavation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DEFINABLE FEATURE OF WORK COMMENTS		
DFOW No.	Phase	Comment/Finding/Action
	Follow-Up	Continue backfill excavation @ Site 6 and 16. Installed additional sod to cover the outside area of the excavation @ Site 6. JJS loaded one Brinson Sand & Gravel trucks with soil from Site 16. The truck departed with soil, for disposal at WM Springhill Landfill. Started to backfill and compact @ Site 16.

SAMPLING / TESTING PERFORMED		
Sampling/Testing Performed	Sampling/Testing Company	Site Technician
N/A	N/A	N/A

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Backfill of excavation @Site 6and 16. Installed additional sod to cover the outside area of the excavation @Site 6. JJS loaded Brinson Sand & Gravel truck with soil from Site 16. The truck departed with soil, for disposal at WM Springhill Landfill.			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/16/02
		Project QC Manager' Signature		Date

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

MATERIALS INSPECTION			
Materials received and inspected against specifications: N/A			
SUBMITTALS INSPECTION / REVIEW			
Submittal No	Spec/Plan Reference	Inspected/Reviewed by	Action
N/A	N/A	N/A	N/A
OFF-SITE SURVEILLANCE ACTIVITIES			
Off-site-surveillance activities, including action taken: N/A			
REWORK			
Rework items identified today which were not corrected by close of business: N/A			
Rework items corrected today which were on the rework items list: N/A			
REPORT COMMENTS			
Finish grading Site 16. Fertilized the sod with triple 13 lawn fertilizer.			
ACCUMULATION AREA INSPECTION			
Inspection Performed By:	N/A	Signature of Inspector:	N/A
Accumulation Area Location:	N/A		
No. of Containers:	N/A	No. of Tanks:	N/A
No. of Roll-Off Boxes:	N/A	No. of Drums:	N/A
Waste Containers, Tanks, and Roll-Off Boxes			
	Yes	No	
Are containers and tanks open?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of primary containment failure (rust, bulges, fluid level drop, sheen in 2 nd containment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are there signs of compromised secondary containment (ripped liner, stained soil)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there any liquid in secondary containment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If any of these questions were marked YES, please comment: N/A			
	Yes	No	
Container, tank, roll-off labeled? "Hazardous Waste", "Non-Hazardous Waste", "Analysis Pending"	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Accumulation start date marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Contents/waste codes marked on container(s), tank(s), roll-off(s)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

CONTRACTOR QUALITY CONTROL REPORT

(ATTACH INSPECTION REPORTS AND CHECKLISTS)

If any of these questions were marked NO, please comment:				
N/A				
Soil Stockpiles				
		Yes	No	
Liner secure and intact?		<input type="checkbox"/>	<input type="checkbox"/>	
Cover in place and secure (as necessary)?		<input type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Accumulation Area				
		Yes	No	
Is the accumulation area free of severe structural deterioration?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is there adequate aisle space between drums to allow unobstructed movement?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
If any of these questions were marked NO, please comment:				
N/A				
Emergency Response Equipment				
		Yes	No	NA
Telephone/Radios	Easily accessible in case of emergency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	In working order?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spill Control	Is unused absorbent material nearby?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Is personnel protective equipment available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Protection	Is a fire extinguisher readily accessible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire extinguisher fully charged and seal intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If any of these questions were marked NO, please comment:				
N/A				
Corrective Action				
Describe actions taken to correct any deficiency noted above:				
N/A				
On behalf of CCI, I certify that this report is complete and correct, and equipment and material used, and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge, except as noted in this report.		Ryan Bitely		05/17/02
		Project QC Manager' Signature		Date

Appendix H

Site Photographs

NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-09-2002 Time: 1830

Site: 16, Frame: 1, Perspective: Southwest

Viewing: Excavation of damp soil from Site 16



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-09-2002 Time: 1830

Site: 16, Frame: 2, Perspective: Southwest

Viewing: Excavation stock pile, noting significant debris at Site 16



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-10-2002, Time: 1545

Site: 16, Frame: 3, Perspective: Southwest

Viewing: Excavation



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-10-2002, Time: 1545

Site: 16, Frame: 4, Perspective: East

Viewing: Excavation area



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-10-2002, Time: 1545

Site: 16, Frame: 5, Perspective: Northwest

Viewing: Excavation area.



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-10-2002, Time: 1545

Site: 16, Frame: 6, Perspective: North

Viewing: Excavation area



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-10-2002, Time: 1545

Site: 16, Frame: 7, Perspective: West

Viewing: Excavation area



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-11-2002, Time: 0945

Site: 16, Frame: 9, Perspective: East

Viewing: Excavation area, showing tree stump being removed



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-11-2002, Time: 0945

Site: 16, Frame: 10, Perspective: Northeast

Viewing: Excavation area, showing tree stump being removed



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-14-2002 Time: 1645

Site: 16, Frame: 20, Perspective: Southwest

Viewing: Backfill at Site 16



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-14-2002, Time: 1645

Site: 16, Frame: 21, Perspective: West Southwest

Viewing: Backfill at Site 16



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-16-2002 Time: 1525

Site: 16, Perspective: Looking Northeast,

Frame: 5A, Viewing: Finished excavation



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-16-2002 Time: 1525

*Site: 16, Perspective: Looking Southwest,
Frame: 6A, Viewing: Site 16 finished excavation*



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002, Time: 1045

*Site: 38, Frame: 11, Perspective: North
Viewing: Excavation area.*



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002, Time: 1045

Site: 38, Frame: 12, Perspective: Northwest

Viewing: Excavation area



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002, Time: 1500

Site: 38, Frame: 13, Perspective: Southwest

Viewing: Excavation Complete



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002, Time: 1500

Site: 38, Frame: 14, Perspective: West

Viewing: Excavation Complete



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002, Time: 1600

Site: 38, Frame: 15, Perspective: Southwest

Viewing: Grade Excavation backfill



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002, Time: 1830

Site: 38, Frame: 16, Perspective: South

Viewing: Sod Installed



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002, Time: 1830

Site: 38, Frame: 17, Perspective: South

Viewing: Sod Installed



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-13-2002

Site: 6 , Frame: 18, Perspective: South

Viewing: Proposed excavation area filled with rainwater



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-15-2002, Time: 1525

Site: 6, Frame: 22, Perspective: Southeast

Viewing: Pit barricaded after excavation.



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-15-2002 Time: 1525

Site: 6, Frame: 23, Perspective Down

Viewing: Pit completed excavation



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-15-2002 Time: 1525

Site: 6, Frame: 24, Perspective: Looking southeast

Viewing: Pit excavation.



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-15-2002, Time: 1525

Site: 6, Frame: 25, Perspective: Down

Viewing: Pit completed



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-15-2002, Time: 1600

Site: 6, Perspective: Looking Southwest, Frame: 0A

Viewing: Equipment decontamination.



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-15-2002, Time: 1600

Site: 6, Perspective: Looking Southwest, Frame: 1A

Viewing: Equipment decontamination.



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-16-2002, Time: 1500

Site: 6, Frame: 2A, Perspective: Looking Southwest,

Viewing: Pit finished with sod



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-16-2002, Time: 1500

Site: 6, Frame: 3A, Perspective: Looking Southwest,

Viewing: Pit finished with sod



NAS Whiting Field CTO-0011, N62467-98-D-0995

Photographed by: Scott Dunbar Date: 05-16-2002, Time: 1500

Site: 6, Frame: 4A, Perspective: Looking Southwest,

Viewing: Pit finished with sod



Appendix I

Transportation and Disposal Log

[illegible]

Appendix J

Manifests, Certified Way Tickets and Certificates of Disposal

7 June, 2002

Ms. Amy Twitty
Project Manager
CH2MHill Constructors Inc.
1766 Sea Lark Lane
Navarre, FL 32566



J.J. SOSA
ASSOCIATES, INC.
Engineers & Contractors

RE: Site Remedial Activities, NAS Whiting Field, Sites 6, 16, and 38
Milton, Santa Rosa County, Florida

Dear Ms. Twitty:

Enclosed herewith is the information requested as per Section 4.6.3 of RFP 0011-0540: Excavation at Whiting Field Sites 6, 16, 38. Attached you will find a copy of the certified manifests (Appendix A), waste disposal documentation field notes (Appendix B), and photographs for the work completed (Appendix C) at NAS Whiting Field, Milton, Florida.

After utility clearance was completed, site clearing commenced on Site 16 on 8 May 2002. Soil removal from Site 16 commenced on 10 May 2002. Three truckloads of soil/debris were transported offsite to the Springhill Regional Landfill located in Campbellton, Florida. One trailer was cracked on one truck, boards were broken on another, and several trees were damaged when hit by the backhoe. All trees were sprayed with seal coat (see attached pictures). A new operator was arranged after these incidents. One more truckload of soil/debris was removed from Site 16 on 11 May 2002. After the aforementioned incidents, the first equipment operator was removed from the job.

Work commenced on Site 38 with a new operator on 13 May 2002. One truckload of soil was removed, and both excavations were back filled and sodded that same day.

Due to rainwater accumulation at Site 6, work was continued on Site 16 on 14 May 2002. One more truckload of soil/debris was removed and back filling was started.

Work commenced on Site 6 on 15 May 2002. Three truckloads of soil were removed and one and a half excavations were back filled and sodded that same day.

Site 6 was completed on 16 May 2002 and one last load of soil/debris was removed from Site 16 for a total of six loads. Back filling continued on Site 16.

was Memorial Highway
Site 297
Tampa, FL 33615-5000
813-888-6525
Fax: 813-881-1285

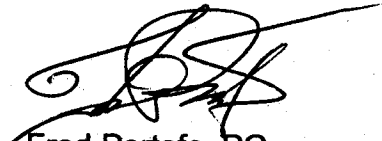
All sites were completed and fertilized on 17 May 2002.

A summary of the total volumes of soil removed from each remedial action area is presented in Appendix A. Waste manifest documentation is also presented in Appendix A. Appendix B presents a copy of the field notes compiled by Mr. Josh Wallace (JJSA's Field Superintendent) during commencement of the remedial activities. Site photos are presented in Appendix C.

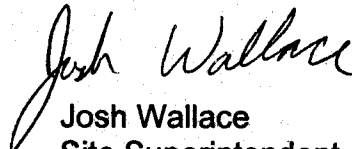
Upon receipt of analytics from two drums of decontamination water sampled by CH2Mhill, JJSA will assess disposal of said water in accordance with the scope of services.

Should you require additional information or assistance on any issue regarding these documents, please do not hesitate to contact the undersigned by telephone at (813) 888-6525.

Sincerely,
J.J. SOSA & ASSOCIATES, INC.



Fred Portofe, PG
Project Manager



Josh Wallace
Site Superintendent

Attachments

APPENDIX A

NAS Whiting Field, Milton, Florida Sites 6,16,38.

Site Number	Manifest Number	Tonnage
Site 6	223277	16.9
Site 6	223274	18.34
Site 6	223276	12.93
Total		48.17

Site Number	Manifest Number	Tonnage
Site 16	245832	15.66
	245833	18.15
	245834	16.99
	245835	18.2
	223275	11.07
	223273	19.3
Total		99.37

Site Number	Manifest Number	Tonnage
Site 38	223268	18.21
Total		18.21



WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address U.S. NAVY/WHITING FIELD NAS 7151 USS WASP STREET MILTON, FL 32570-6159				A. Manifest Number WMNA 223277							
4. Generator's Phone 850 623-7181				B. State Generator's ID							
5. Transporter 1 Company Name BRINSON SAND		6. US EPA ID Number		C. State Transporter's ID							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone (850) 875-3439							
9. Designated Facility Name and Site Address SPRINGHILL REGIONAL LANDFILL 4945 HIGHWAY 273 CAMPBELLTON, FL 32426		10. US EPA ID Number 1032C58617		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 850-263-7100							
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity		14. Unit Wt./Vol.		I. Misc. Comments	
a. NON-HAZARDOUS IMPACTED SOIL WM Profile # CR 1235				0 0 1 0 U		00020					
b. WM Profile #											
c. WM Profile # 16.90											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____					
15. Special Handling Instructions and Additional Information CERTIFICATE OF DISPOSAL IS REQUIRED Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name James B. Holland						Signature "On behalf of" <i>James B. Holland</i>			Month Day Year 05/15/02		
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name Kenny Hopkins						Signature <i>Kenny Hopkins</i>			Month Day Year 05/15/02		
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name						Signature			Month Day Year		
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.											
Printed/Typed Name						Signature <i>[Signature]</i>			Month Day Year 5/16/02		



WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address U.S. NAVY/WHITING FIELD NAS 7151 USS WASP STREET MILTON, FL 32570-6159				A. Manifest Number WMNA 223274							
4. Generator's Phone 850 623-7181				B. State Generator's ID							
5. Transporter 1 Company Name BRINSON SAND		6. US EPA ID Number		C. State Transporter's ID							
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone (850) 875-3439							
9. Designated Facility Name and Site Address SPRINGHILL REGIONAL LANDFILL 4945 HIGHWAY 273 CAMPBELLTON, FL 32426		10. US EPA ID Number 1032058617		E. State Transporter's ID							
				F. Transporter's Phone							
				G. State Facility's ID							
				H. Facility's Phone 850-263-7100							
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity		14. Unit Wt./Vol.		I. Misc. Comments	
a. NON-HAZARDOUS IMPACTED SOIL WM Profile # CR 1235				0 0 1 0 11		0 0 0 1 1 8		T			
b. WM Profile #											
c. WM Profile #											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information CERTIFICATE OF DISPOSAL IS REQUIRED Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name James B. Holland				Signature "On behalf of" <i>[Signature]</i>				Month Day Year 10 5 11 5 0 2			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Kenay Hopkins				Signature <i>[Signature]</i>				Month Day Year 1 5 11 5 0 2			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certificate of receipt of non-hazardous materials covered by this manifest.											
Printed/Typed Name M. Winkle				Signature M. Winkle				Month Day Year 05 11 5 0 2			



WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address U.S. NAVY/WHITING FIELD NAS 7151 USS WASP STREET MILTON, FL 32570-6159				A. Manifest Number WMNA-223276			
4. Generator's Phone 850 623-7181				B. State Generator's ID			
5. Transporter 1 Company Name BRINSON SAND		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone (850) 875-3439	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address SPRINGHILL REGIONAL LANDFILL 4945 HIGHWAY 273 CAMPBELLTON, FL 32426				10. US EPA ID Number 1032C58617		G. State Facility's ID	
				H. Facility's Phone 850-263-7100			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. NON-HAZARDOUS IMPACTED SOIL WM Profile # CR 1235				0 0 1 0 11		0 0 0 2 2 T	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information CERTIFICATE OF DISPOSAL IS REQUIRED Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name James B Holland				Signature "On behalf of" [Signature]		Month Day Year 10/5/15/02	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name DORACE Hobbs				Signature [Signature]		Month Day Year 10/5/15/02	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certificate of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name J Bryan							
				Signature [Signature]		Month Day Year 10/5/15/02	



NON-HAZARDOUS MANIFEST

JD-1

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. <u>N/A</u>		Manifest Document No.		2. Page 1 of						
3. Generator's Name and Mailing Address <u>U.S. Navy/Whiting Field NAS</u> <u>7151 USS Wasp Street</u> <u>Milton, FL 32570-6159</u>						A. Manifest Number WMNA <u>245832</u>						
4. Generator's Phone <u>(850) 623-7181</u>						B. State Generator's ID						
5. Transporter 1 Company Name <u>Brinson Sand</u>			6. US EPA ID Number			C. State Transporter's ID						
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone						
9. Designated Facility Name and Site Address <u>Springhill Regional Landfill</u> <u>4945 Highway 273</u> <u>Campbellton, FL 32426</u>			10. US EPA ID Number <u>11032C58617</u>			E. State Transporter's ID						
						F. Transporter's Phone						
						G. State Facility's ID						
						H. Facility's Phone <u>850-263-7100</u>						
GENERATOR	11. Description of Waste Materials <u>Non-hazardous impacted soil</u>				12. Containers No.		13. Total Quantity		14. Unit Wt./Vol.		15. Misc. Comments	
	a. <u>Non hazardous impacted soil</u> WM Profile # <u>CR 1235</u>				0101		DU		22		T est.	
	b. WM Profile #											
	c. WM Profile # <u>15.6/4</u>											
	d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____						K. Disposal Location Cell _____ Level _____ Grid _____						
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____												
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations. Printed/Typed Name <u>D.S. MATTHEWS</u> Signature "On behalf of" <u>D.J. Matthews</u> Month Day Year <u>10/5/10/02</u>												
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <u>JAMES DICKEY</u> Signature <u>James Dickey</u> Month Day Year <u>10/5/10/02</u>											
	18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name _____ Signature _____ Month Day Year _____											
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
	20. Facility Owner or Operator: Certificate of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name _____ Signature _____ Month Day Year _____											



NON-HAZARDOUS MANIFEST

B8

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. N/A	Manifest Document No.	2. Page 1 of
3. Generator's Name and Mailing Address U.S. Navy/Whiting Field NAS 7151 USS Wasp Street Milton, FL 32570-6159		A. Manifest Number WMNA 245833		
4. Generator's Phone (850) 623-7181		B. State Generator's ID		
5. Transporter 1 Company Name Brinson Sand	6. US EPA ID Number	C. State Transporter's ID		
7. Transporter 2 Company Name	8. US EPA ID Number	D. Transporter's Phone		
9. Designated Facility Name and Site Address Springhill Regional Landfill 4945 Highway 273 Campbellton, FL 32426		10. US EPA ID Number 11032C58617	E. State Transporter's ID	
			F. Transporter's Phone	
			G. State Facility's ID	
			H. Facility's Phone 850-263-7100	
11. Description of Waste Materials		12. Containers No.	13. Total Quantity	14. Unit Wt./Vol.
a. Non hazardous impacted soil WM Profile # CR 1235		010104	22	T
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____		K. Disposal Location Cell _____ Level _____ Grid _____		
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name D.S. MATTHEWS		Signature "On behalf of" D.J. [Signature]		Month Day Year 10/5/10/02
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name HORACE HOBBS		Signature [Signature]		Month Day Year 10/5/10/02
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Month Day Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certificate of receipt of non-hazardous materials covered by this manifest.				
Printed/Typed Name M. Winkle		Signature M. Winkle		Month Day Year 10/5/10/02



NON-HAZARDOUS MANIFEST

B10

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No.		2. Page 1 of	
3. Generator's Name and Mailing Address U.S. Navy/Whiting Field NAS 7151 USS Wasp Street Milton, FL 32570-6159						A. Manifest Number WMNA 245834	
4. Generator's Phone (850) 623-7181						B. State Generator's ID	
5. Transporter 1 Company Name Brinson Sand			6. US EPA ID Number			C. State Transporter's ID	
7. Transporter 2 Company Name			8. US EPA ID Number			D. Transporter's Phone	
9. Designated Facility Name and Site Address Springhill Regional Landfill 4945 Highway 273 Campbellton, FL 32426			10. US EPA ID Number 11032C58617			E. State Transporter's ID	
						F. Transporter's Phone	
						G. State Facility's ID	
						H. Facility's Phone (850) 263-7100	
11. Description of Waste Materials				12. Containers		13. Total Quantity	
				No. Type		14. Unit Wt./Vol.	
a. Non hazardous Impacted Soils WM Profile # CR 1235				0101 014		122 T	
b. WM Profile #							
c. WM Profile #							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above						K. Disposal Location	
Landfill _____ Solidification _____						Cell _____ Level _____	
Bio Remediation _____						Grid _____	
15. Special Handling Instructions and Additional Information							
Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name D.J. MATTHEWS				Signature "On behalf of" <i>D.J. Matthews</i>		Month Day Year 05/10/02	
17. Transporter 1 Acknowledgement of Receipt of Materials				Printed/Typed Name John Dunning		Signature <i>John Dunning</i>	
				Month Day Year 05/10/02			
18. Transporter 2 Acknowledgement of Receipt of Materials				Printed/Typed Name		Signature	
				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certificate of receipt of non-hazardous materials covered by this manifest.							
Printed/Typed Name M. Winkle				Signature <i>M. Winkle</i>		Month Day Year 05/10/02	



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of					
3. Generator's Name and Mailing Address us Navy/Whiting Field NAS 7151 USS WASP Street Milton, FL 32570-6159				A. Manifest Number WMNA 245835							
4. Generator's Phone (850) 623-7181				B. State Generator's ID							
5. Transporter 1 Company Name Brinson Sang		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone					
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone					
9. Designated Facility Name and Site Address Springhill Regional Landfill 4945 Highway 273 Campbellton, FL 32424				10. US EPA ID Number 11032C58617		G. State Facility's ID					
				H. Facility's Phone (850) 263-7100							
11. Description of Waste Materials				12. Containers		13. Total Quantity		14. Unit Wt./Vol.		I. Misc. Comments	
a. Non hazardous Impacted Soils WM Profile # CR 1235				00104		122		T		est.	
b. WM Profile #											
c. WM Profile # 18-20											
d. WM Profile #											
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____							
15. Special Handling Instructions and Additional Information Purchase Order # _____ EMERGENCY CONTACT: _____											
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.											
Printed/Typed Name P.J. Matthews				Signature "On behalf of" <i>[Signature]</i>				Month Day Year 10/5/10/02			
17. Transporter 1 Acknowledgement of Receipt of Materials											
Printed/Typed Name Thomas D Tharp				Signature <i>[Signature]</i>				Month Day Year 10/5/11/02			
18. Transporter 2 Acknowledgement of Receipt of Materials											
Printed/Typed Name				Signature				Month Day Year			
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.											
20. Facility Owner or Operator: Certificate of receipt of non-hazardous materials covered by this manifest.											
Printed/Typed Name J Bryan				Signature <i>[Signature]</i>				Month Day Year 10/5/11/02			



NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address		U.S. NAVY/WHITING FIELD NAS 7151 USS WASP STREET MILTON, FL 32570-6159		A. Manifest Number WMNA 223273
4. Generator's Phone 850 623-7181		6. US EPA ID Number		B. State Generator's ID
5. Transporter 1 Company Name BRINSON SAND		8. US EPA ID Number		C. State Transporter's ID
7. Transporter 2 Company Name		10. US EPA ID Number		D. Transporter's Phone (850) 875-3439
9. Designated Facility Name and Site Address SPRINGHILL REGIONAL LANDFILL 4945 HIGHWAY 273 CAMPBELLTON, FL 32426		11. Description of Waste Materials		E. State Transporter's ID
				F. Transporter's Phone
				G. State Facility's ID
				H. Facility's Phone 850-263-7100
				I. Misc. Comments
a. NON-HAZARDOUS IMPACTED SOIL		12. Containers No. Type		13. Total Quantity
WM Profile #		CR 1235 0 0 1 0 0 0 0 2 0 T		14. Unit Wt./Vol.
b. WM Profile #				
c. WM Profile #				
d. WM Profile #				
J. Additional Descriptions for Materials Listed Above		K. Disposal Location		
Landfill _____ Solidification _____		Cell _____ Level _____		
Bio Remediation _____		Grid _____		
15. Special Handling Instructions and Additional Information CERTIFICATE OF DISPOSAL IS REQUIRED				
Purchase Order # _____ EMERGENCY CONTACT: _____				
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name Leslie S. Steele LDR,CEC,USN		Signature "On behalf of" <i>Leslie S. Steele</i>		Month Day Year 10/5/16/02
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature <i>Rick McDaniel</i>		Month Day Year 10/5/16/02
Printed/Typed Name Rick McDaniel		Signature <i>Rick McDaniel</i>		Month Day Year 10/5/16/02
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature		Month Day Year
Printed/Typed Name		Signature		Month Day Year
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.				
Printed/Typed Name Cross		Signature <i>Cross</i>		Month Day Year 5/16/02



WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1
3. Generator's Name and Mailing Address		U.S. NAVY/WHITING FIELD NAS 7151 USS WASP STREET MILTON, FL 32570-6159		A. Manifest Number WMNA 223275
4. Generator's Phone 850 623-7181		6. US EPA ID Number		B. State Generator's ID
5. Transporter 1 Company Name BRINSON SAND		6. US EPA ID Number		C. State Transporter's ID
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone (850) 875-3439
9. Designated Facility Name and Site Address SPRINGHILL REGIONAL LANDFILL 4945 HIGHWAY 273 CAMPBELLTON, FL 32426		10. US EPA ID Number 1032C58617		E. State Transporter's ID
				F. Transporter's Phone
				G. State Facility's ID
				H. Facility's Phone 850-263-7100
11. Description of Waste Materials		12. Containers No.	Type	13. Total Quantity
a. NON-HAZARDOUS IMPACTED SOIL				14. Unit WL/Vol.
WM Profile #				I. Misc. Comments
b. CR 1225		001	DU	00017
WM Profile #				
c. 1107				
WM Profile #				
d. 1107				
WM Profile #				
J. Additional Descriptions for Materials Listed Above		K. Disposal Location		
Landfill _____ Solidification _____		Cell _____ Level _____		
Bio Remediation _____		Grid _____		
15. Special Handling Instructions and Additional Information				
CERTIFICATE OF DISPOSAL IS REQUIRED				
Purchase Order #		EMERGENCY CONTACT:		
16. GENERATOR'S CERTIFICATION:				
I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.				
Printed/Typed Name James B. Holland		Signature "On behalf of"		Month Day Year 10/5/14/02
17. Transporter 1 Acknowledgement of Receipt of Materials		Signature James B. Holland		Month Day Year 10/5/14/02
Printed/Typed Name JAMES B. HOLLAND		Signature James B. Holland		Month Day Year 10/5/14/02
18. Transporter 2 Acknowledgement of Receipt of Materials		Signature James B. Holland		Month Day Year 10/5/14/02
Printed/Typed Name JAMES B. HOLLAND		Signature James B. Holland		Month Day Year 10/5/14/02
19. Certificate of Final Treatment/Disposal				
I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
20. Facility Owner or Operator: Certificate of receipt of non hazardous materials covered by this manifest.				
Printed/Typed Name James B. Holland		Signature James B. Holland		Month Day Year 10/5/14/02



WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. N/A		Manifest Document No.		2. Page 1 of 1	
3. Generator's Name and Mailing Address U.S. NAVY/WHITING FIELD NAS 7151 USS WASP STREET MILTON, FL 32570-6159				A. Manifest Number WMNA 223268			
4. Generator's Phone 850 623-7181				B. State Generator's ID			
5. Transporter 1 Company Name BRINSON SAND		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone (850) 875-3439	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID		F. Transporter's Phone	
9. Designated Facility Name and Site Address SPRINGHILL REGIONAL LANDFILL 4945 HIGHWAY 273 CAMPBELLTON, FL 32426				10. US EPA ID Number 1032C58617		G. State Facility's ID	
				H. Facility's Phone 850-263-7100			
11. Description of Waste Materials				12. Containers No. Type		13. Total Quantity	
a. NON-HAZARDOUS IMPACTED SOIL WM Profile # CR 1235				0 0 1 0 11		0 0 0 1 2 2 T	
b. WM Profile #							
c. WM Profile # 18.2							
d. WM Profile #							
J. Additional Descriptions for Materials Listed Above Landfill _____ Solidification _____ Bio Remediation _____				K. Disposal Location Cell _____ Level _____ Grid _____			
15. Special Handling Instructions and Additional Information CERTIFICATE OF DISPOSAL IS REQUIRED Purchase Order # _____ EMERGENCY CONTACT: _____							
16. GENERATOR'S CERTIFICATION: I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.							
Printed/Typed Name D.J. MATTHEWS				Signature "On behalf of" <i>D.J. Matthews</i>		Month Day Year 10/5/13/02	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name JAMES DICKY				Signature <i>James Dicky</i>		Month Day Year 10/5/13/02	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year	
19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.							
20. Facility Owner or Operator: Certificate of receipt of non-hazardous materials covered by this manifest. Printed/Typed Name J. Bryan							
				Signature <i>J. Bryan</i>		Month Day Year 10/5/13/02	

APPENDIX B

Voluntary Field Date 8/6/09
Project Name CCHN Building Field
Site Director CHM Hill

Talked to, Reginald Bitchy,
will meet him at W. Hunting
ton with the thorough rules
he has already called
down here his cuts.
Wing McEwen will
be with the supper for CH. work.
He will be in mid-day.

830. Met Ryan @ whiting and got
into the pass/access.
went to all three sites and
the ~~stake~~ site.

the stockpile.
CCI want us to not take trucks
back in on 16, but if we don't
there is a risk of spilling
with the front end loader.
Site & try the banger will
be difficult to set up in that,
keeping the trucks from tearing
up the grass. The site by the
end of course will be used to
store the material. The
don't worry about it. When
course is closed.

discussing w/ Ryan, we decided
that we'll have a great day to
do that one.

do that one.
As I look now, the job
will not start until Wed.
which gives us time to schedule
equip. delivery and get supplies

10:30 Talked to Richard and caught him up on what was discussed. The Onsale individual will start Wed. morning.

The horse does not want full sitting at notes so we will leave to stage about in the morning before we remove and. I

Richard will call Henry
about a week morning delivery.

Location Unknown
Project / Client C2, C6, N

Date 5/11/02

730 write w/ Ryan. Discussed cutting down tree with axe. Must that idea for health and safety issues. Discussed with first chain saw w/ all safety equipment. Will go to General rental on Dover lane.

Ryan didn't know if the base needed to sign the manifest but he gave the number of Jan. Holland. The base is recommended. Superwoman (850) 623-7181 x 49.

900 Office to sent equipment and make phone calls.

952 Home Depot does not have poly tank. must find alternate source.

Location Unknown
Project / Client C2, C6, N

Date 5/11/02

730 write w/ Ryan. Discussed cutting down tree with axe. Must that idea for health and safety issues. Discussed with first chain saw w/ all safety equipment. Will go to General rental on Dover lane.

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900 Office to sent equipment and make phone calls.

952 Home Depot does not have poly tank. must find alternate source.

Landfill guy =

10:30 left message w/ Jim Holland

Sharon Crooks
(850) 263-7100
850-803-0081

Jim Stanton
(850) 423-0701
(850) 423-7490 fax
12:30 onsite w/ Ryan and Cary
to stake out sites

Wed. 5/11

Alfred Sod #103
850 626 8578
Billie

9:00
10:00 Called Sharon he never
received a profile so we
need to put one together.
Called Richard. He will
send a copy of the data
to the hotel so we can
put a profile together
get heard make.
10:00 Offsite to get safety chaps
for chameleon. Will other
supplies. Need to pick up
chain saw in the morning.
1:00 Met w/ Fred to discuss
project.

145 inside of Terry & Ryan -
Health and Safety.
(Spill kit)

150 Talked to Hank. From
Henty equip. will be here
around 8:40.

Terry Ryan, John, Fred,
Josh inside

160 Amy inside. Dropped off
analytics. They were never
sent in. Richard
Call Shuman Cigars to tell
them we can bring analytics
w. say that what he has
should suffice. A blank
page of what was for
the case so we could
let it and get it signed
and send back for manifests
Ordered bigger bucket for Backhoe

1110 Noted gas cap was missing
Henty is sending one
out with a guy to change
the bucket.

1150 Shut down job so as not
to spoil white (dress)

1330 Henty inside w/ new
bucket and cap

1345 Fred is taking care of
the profile ~~to~~ w/ the
landfill and Jim Holland

1357 Landfill never fixed profile
found, called landfill and
Melanie is fixing one to
us.

1359 John attempted to grease the
Backhoe joints while the
mechanics are here,
however most of the
joints are clogged

Location Wishburn, Idaho Date 5/8
Project / Client 02-016W

1407 Support for bucket is too short so the mechanic is going to weld it in place weld end rods across the piece so it won't slide



1435 Bucket back on. Back to work.

1525 (850) 875-3439 Trucks.

Danny Benson
Benson signed for gravel.

Approved (205) 652-8462
Robert Simpson

1526 Andy Adams called. need to set up trucks w/ Danny Benson.

Andy Adams.

(850) 232-2228.

1600 started moving back fill will keep hauling dirt until 1800 hours.

1830 offsite. 3 loads of dirt hauled.

Location: Whiting Creek
Project / Client: 02 - EIGN
Date: 5/4/02
CH2M Hill

647 inside Josh + John.
Today we plan to move the rest of the fill then roll back half of the hole.
We also hope to get the inner fill cleaned to start hauling dirt.

658 Terry onsite.

660 Ryan onsite Tailgate safety meeting.

662 Called Richard to fill him in on what was accomplished yesterday and what to be done today.

Told him how Gary gave us the wrong analyticals (Boundary) samples and also said she never gave us the analyticals because we never asked for them.

Also told him how Andy wants us to line up our own trucks with Danny Brennan started hauling dirt.
Richard will talk to Andy Adams so we can get crap done.

815 fourth load.

832 Back to get fifth load.
Two people cannot be at fill at same time.

910 at landfill for fifth load. will pull over at least 10 yards before we dig out dirt hole.

1030 starting to open hole.

1100 Gary approval from Robert Simpson and Andy Adams to start hauling

Location *U.S. Forest Service*
Project / Client *U.S. Forest Service*

Date

5/19/02

1200 Diet Fred is talking to DA to maps and we can get signatures in the morning. Andy will dig off plank maps to me tonight so that we can go by hand. Robert Simpson will fax a copy of a printed one so we can use the blanks.

1200 Jan and Norman stopped and said all is clear to dig. PR1/DSE

1205 Site is extremely dusty going offsite to get 1/2 acre respirators.

1215 Set up three trucks for tomorrow at 9:00. Single off dump trailers.

300 Back onsite moving dirt.

Location *U.S. Forest Service*
Project / Client *U.S. Forest Service*

Date

5/19/02

1315 Terry informed me that Centiped grass can be used at site 6 and Bermuda can be used on site 38. We'll use the centipede Saturday morning. Bermuda Monday morning. Richard will call to get the front end loader set up for us.

1408 Breathing zone FID 4.18 hole is about 6 inches deep.

1435 breaking for latrine. FID seedlings taking a couple times a day plus whenever something is encountered i.e. intact drums. Cage across burnt out drums and glass bottles spot use present & not concerned.

SWS Batch.

Oliver SWS Rodas.

1415 Called to Andy Adams.
he wants to meet to
give me manifests.
He says he cannot
detour beams.

1530 Got blank manifests from
Andy and manifests for
Dedems.

1545 Back onsite. Hope a little
deeper but not looking bad.

Need to let guard slack.
know that we will be having
trucks coming through.

1610 Drums for Dalm.
\$240.00
Ordered from SWS
for morning delivery

Still no word from Hank
about the front end loader

1615 Scott Dunbar is making a
call about getting us a
front end loader.

1715 Kirk Rhone (Herty)
(850) 455 3929
\$1225 a week

10:00 tomorrow
I need to set up to make
it happen.

1725 Ordered front end
loader.
Called to push trucks
back an hour. no one
answered. Left message
with Dandy and gave
my number so all
could call if there
were any problems.

Stump is proving difficult, but will have to keep working at it.

Called Richard to let him know that I will be ordering this order.

Dave wants all of our coils on site. He also asked if I had certification to cover a city. I said no. But I do have my supervisor's certification.

705 offsite. Contaminated soils buried. silt fence on SW side of excavation.

All soils left uncovered as per Smith's request. Will be back inside 700 am.

SW 72°

640 onsite (Josh + John) going through cleanup checklist & calibration.

655 Scott onsite

702 Ryan onsite

We can go ahead and start. They will stop us for safety meeting.

725 Danny Brunson called. Truck not able to be pushed back. Will call him to get another truck if needed.

Frost Union 9 m. to Rd
235 East
(850) 469-9251

755 Health & Safety Tailgate

800 DI onsite to sign manifest

815 Kirk Rheme onsite (Henry)

Location Whiting Island Date 5/15/62
 Project / Client DE-SPON CH2M/HILL

9:30 first truck onsite.
 will want to load until
 front end loader arrives

10:02 start hauling
 WS DOT 664637 850 545 9409
 MC 346 186 Dickey

850-3210-
 (850) 263 7100 R201
 Sea's house

James Dickey (LT)
 (850) 524-9500

9:30 Two more trucks on site.
 still no loader

9:59 still working on first truck
 Cracked trailer of first truck
 Emerson's
 front end loader
 10:20 we need for respirator mask
 cab of front end loader

Time	Truck No.	Man #	Job	Acc. Ton.	Contents
10:15	7177 (LT)	245838			Nm box
1725	B8	245838			Nm box
1330	B10	245834			Nm box
		245835	fw		

1045 need to remake logs.
 knapped down half of the
 stakes.

Broke boards on second truck
 D3 will come back at 1:30
 to sign next manifests

1053 Called Richard, he placed
 two calls about the rot.
 and will keep trying

1402 offsite for lunch.

Swath is not happy
 with the site. needs to
 clean it up and stock
 pile dirty soil for
 disposal tomorrow

Will backfill hole tomorrow. Need more other excavations back a day.

Site 1 Co is trashed need to get new operator onsite.

1435 Bought new wheel for tires.

1440 Buck on inter to remove dirt and stock pile on request.

1521 Buck has almost out of gas.

John Smith
6 Bar oil.

(850) 839-7505
Offsite to buy diesel.

1649 onsite from getting diesel.

1655 Scott & Ryan are laying out boundaries again.

1715 Called Herty to get Buck Hoe going again. Mechanic will be out in 30 to 45 minutes.

1800 Dirt covered and trees painted with seal coat.

1830 Herty onsite. Had to prime it.

1850 Offsite for loaded.

Talked to Freddy new guy/operator will be here Sunday night.

Location: Washington, DC Date: 2/1/06

Project / Client: 02-0100

8:55 Inside to start checking equip. so we can start calling when cal. equip.

9:10 Ryan onsite commencing digging. fire fighting going in at adjacent building.

9:45 Truck arrived
long hauling
Truck manifest #10
T1 245835
Offsite 19:02

9:45 Tree removed, dirt from around hole (tree) put back in place.

10:30 pile covered w/ burlap.
going to dry decom equip.

11:50 Offsite starting up again at 7:00 Monday
Informed John he will be off job.

Carter seal

(850) 623-1058

Centipede in Bermuda

Wooner Turf.

Craigton.

1202 Carter seal has centipede & a centipede/Bermuda mix. But they don't deliver. They will not have it ready by 1:00 pm Monday. Will have to send a truck up to get it done before.

12:15 Talked to Tuesday about possibility to add yes, also to try Home Depot.

They only have 1000 units. They left message w/ Carter about getting seal.

Location: *Wilmington, DE* Date: *5/11/02*

Project / Client: *02 0000 21121711/11*

Monday will call back Sunday

1300 John Dutton told me ~~his~~ wedding in one ear. Adding wild problems.

800 John checked out. Let them stay the night b/c we will charge for the room anyway.

1115 Dicked up sausage from Home Depot.

1207 Covered Excavation because it looks like we're

Back at hotel to relax

1020 Talked to Danny Bensen
 sent 2nd truck back
 home.

1130 first hole complete

1250 second hole dug
 putting in next truckload
 of fill

Truck manifest
 41 203268
 Offsite 13:30

1343 loading dump truck
 with more fill.

1405 Offsite for road

1510 Onsite w/ sept. bringing
 over another load.

1615 started laying - soq

Cloudy - chance of showers

Onsite. Josh & Richie
 both onsite as well.
 going to get Richie's son-in-law
 equipment then go fill.

1200 Tailgate safety meeting

1300 Staged Truck has @ Site &
 going back for fill.

1320 Offsite for diesel

1340 Trucks onsite

1400 Set upon other site 38
 - lunch lined & ready

1537 loading truck.

1610 1/2 of full education done.
 going to have to send out
 1st truck.

James Dickey is going call &
 cancel second truck.

Date _____

Date 5/15/02

Location: قبرستان کهنه کوه

Date _____

194-6847-22

Project / Client at Wood / CH2M Hill

J. C. Little Magazine Co.

725 site of Dandel morning
eqing for tomorrow!

800 Webster Hotel.

455 onsite (Josh & Robbie)
Scott already onsite

755 Had trouble with passes
South is taking care of it
one side at least is
full of water we have
the pump out before
we can excavate!

820 Have two pumps on it and
will build a dam to save
the amount to pump out.
First truck will be on site at
9:30

835 Sect. II went to check on Rock. p

~~(850-678)~~ 427-2559
Sweet cell,

902 moving over to site No. 6
b/c of like water on 6

915 - Buckminster

9:50 off site to return
children saw and get back

41 Back over. Truck is still here.

100 Truck v. manifest* 07:07
21 223975

After truck left, Rachie started cleaning out the hole leveling it off. Squaring off the sides. On Scott's throw balls the hole is to his satisfaction. We started dumping in shls. it takes about 45 minutes round trip to dump the shls. As it looks now work will need to be done Thursday morning to complete site. The well, for minor clean up & some back filling.

The water is completely gone from site. We have 2 people scheduled for last thing in the morning at 7:00 and another one at 9:00 we can get one more should we need

17

1600. Scott after he will meet us in the morning.

Rachie found the switch to lock in the ladder bucket.

Questions were raised as to whether or not we'd be able to access site in the morning. Peter to 7 am. We will find out tomorrow. Scott didn't think so.

The Borrow pit is wet & messy, but is still okay for removing fill.

Area set aside at Borrow pit is dwindling. Gary said we can go & passed it a little to the left and the right. Very hard clay at the bottom.

10:50 Talked to Denny and lined another truck out for 1300 hours.

11:15 Second truck gone 3rd truck will not be here until 1330. Will get sod now.

11:45 Offsite for sod.

12:27 have pallet of sod. Heading back to Whiting field.

12:47 back onsite.

1:50 Truck onsite, started setting up again. stopped to load truck.

Truck No Manifest Offsite 1500

Once the second hole was completed we pressure washed the equip. The washer sucked. But the equip got clean.

Then we started hauling fill into site. I would like to finish to tonight.

Offsite
 2100

Sodded 1 and 1/2 holes at site. Need to pick up more sod today for tomorrow put soil fence up at down gradient hole.

6:30 onsite Robbie Josh, Scott
handgate safety meeting
had to do some work on
site to small grading and
burying down more foot. Also
needed to fix silt fence.
Starting hauling dirt back
to site 16.

7:10 Truck onsite (B7)

Left Truck and kept
hauling dirt.

11:15 Truck off site. He was
here for 3 1/2 hours. He
said he will change
for down time.

Four loads hauled to
16, will need more.

Decided equip. Had to
leave site to buy more
gas.

Hauled three more loads
to 16 and put the east
of the road down.

Labeled out some of the
dirt. Will fence grade it
tomorrow as well as
fertilizing.

Tomorrow will do forest
walk through with Scott.

1730 offsite.

WAs Whiting Field Date 5/17/62
Project 02-016N/CH2MH11
68° overcast

648 Onsite (John & Rocky)
715 South & Ryan onsite.
Rechecked all sites, pinned
down bed at site Co.

finished grading site 16.
Waiting to lay the p-
head from Scott.

Herty leaving #

Dump 131 1331902
Gen 1331900
Ken 1331886

10:30 offsite

10-11-2008 10:00 AM

2.35 Called the school house.
about 1000 of disposal & load
truck she had to call back
at 1:00 am. and talk to
Livia.

(850) 263-7100 x 201

Location

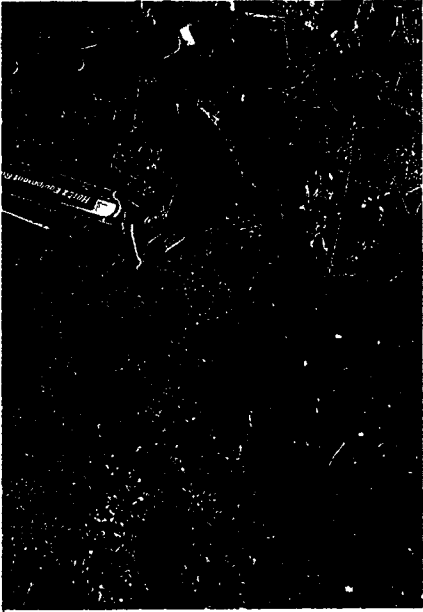
Project / Client

Page

APPENDIX C



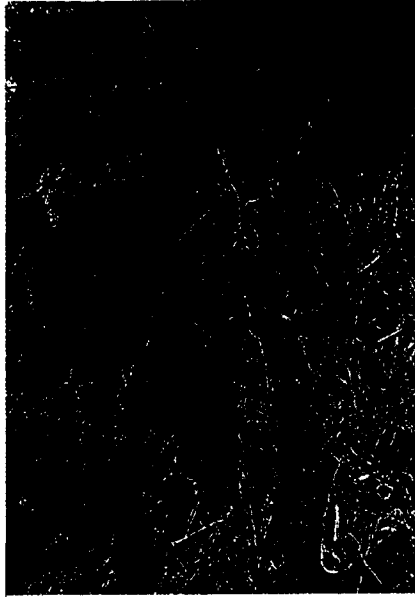
Site 16: Clearing



Site 16: Excavation



Site 16: Tree stump prior to removal



Site 16: Excavation

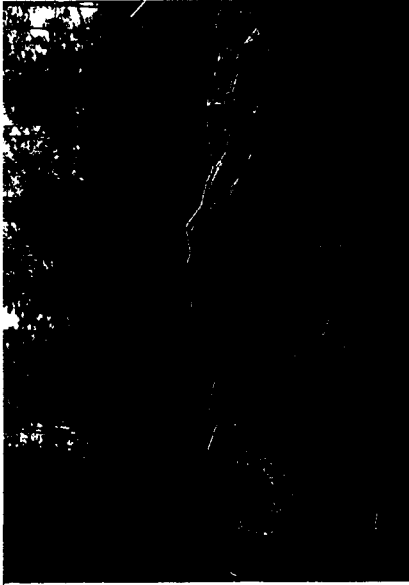
J.J. SOSA & ASSOCIATES, Inc.		SITE PHOTOGRAPHS		JOB #: 02016N	Task: 0100
5811 Memorial Highway, Suite 207 Tampa, Florida Phone: (813) 880-8025		Soil Removal		DATE:	
				LOCATION: NAS Whiting Field, Milton, Florida	
				PAGE:	CHECKED BY:



Site 16: Excavation



Site 16: Stockpiled Fill

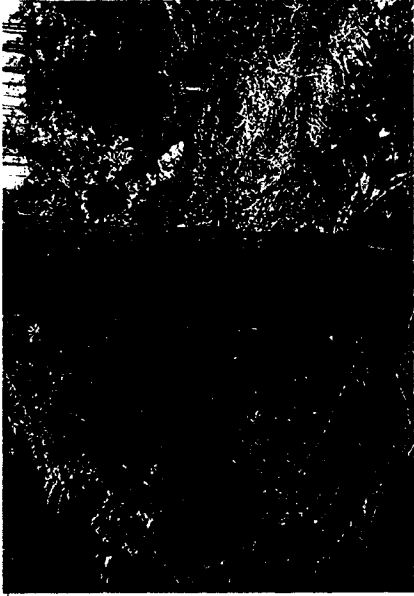


Site 16: Covered Soils



Site 16: Covered Soils

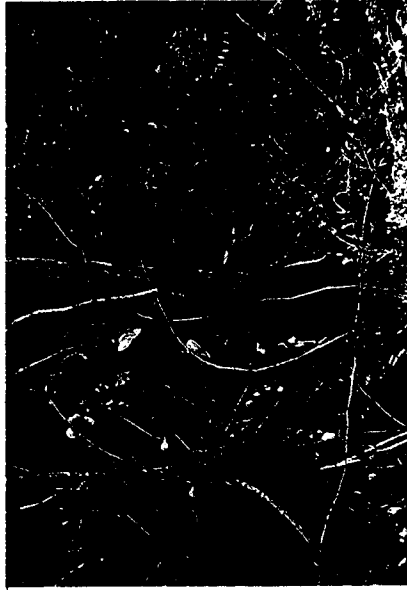
J.J. SOSA & ASSOCIATES, Inc. <small>5811 Memorial Highway, Suite 207 Tampa, Florida 33634 Phone: (813) 886-0025</small>		SITE PHOTOGRAPHS Soil Removal		JOB #:	02016N	Task:	0100
				DATE:			
				LOCATION: NAS Whiting Field, Milton, Florida			
				PAGE:		CHECKED BY:	



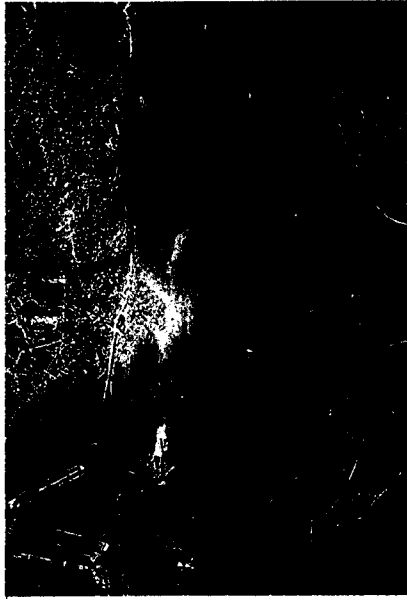
Site 16: Seal Coated Tree



Site 16: Seal Coated Tree



Site 16: Seal Coated Tree



Site 16: Excavation

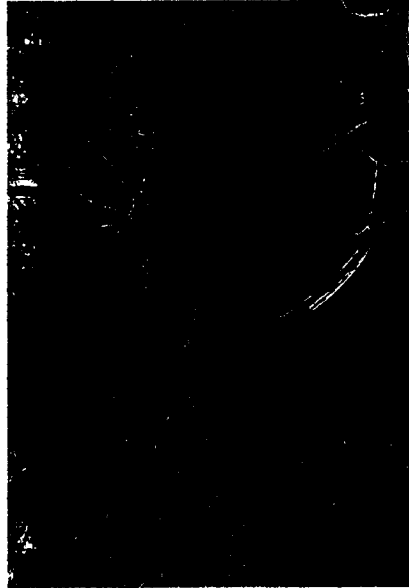
J.J. SOSA & ASSOCIATES, Inc.		SITE PHOTOGRAPHS		JOB #: 02016N	Task: 0100
9511 Memorial Highway, Suite 207 Tampa, Florida Phone: (813) 666-6025		Soil Removal		DATE:	
				LOCATION: NAS Whiting Field, Milton, Florida	
				PAGE:	CHECKED BY:



Site 16: Finished Entrance



Site 16: Finished Excavation



Site 16: Finished Excavation

J.J. SOSA & ASSOCIATES, Inc.		SITE PHOTOGRAPHS		JOB #:	02016N	Task:	0100
5911 Memorial Highway, Suite 207 Tampa, Florida Phone: (813) 884-0025		Soil Removal		DATE:		LOCATION: NAS Whiting Field, Milton, Florida	
				PAGE:		CHECKED BY:	



Site 16: Soil Loading



Site 16: Damaged Tree



Site 16: Damaged Tree

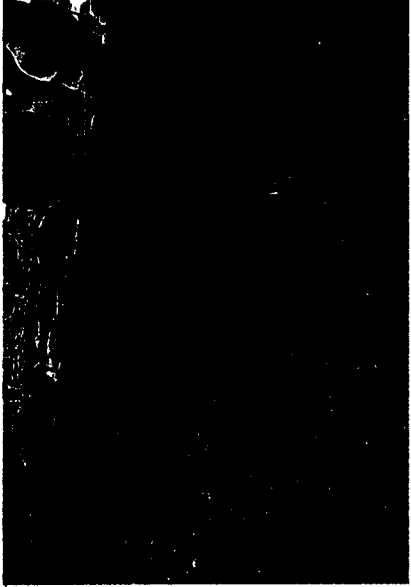


Site 16: Cracked Trailer

J.J. SOSA & ASSOCIATES, Inc. 5811 Memorial Highway, Suite 207 Tampa, Florida Phone: (813) 888-8225		SITE PHOTOGRAPHS Soil Removal		JOB #:	02016N	Task:	0100
				DATE:			
				LOCATION: NAS Whiting Field, Milton, Florida			
				PAGE:		CHECKED BY:	



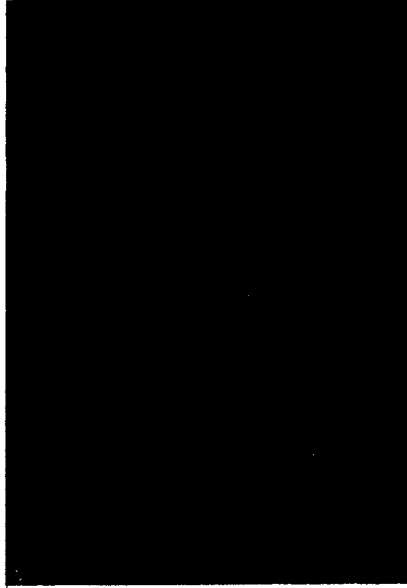
Site 38: Excavation



Site 38: Excavation

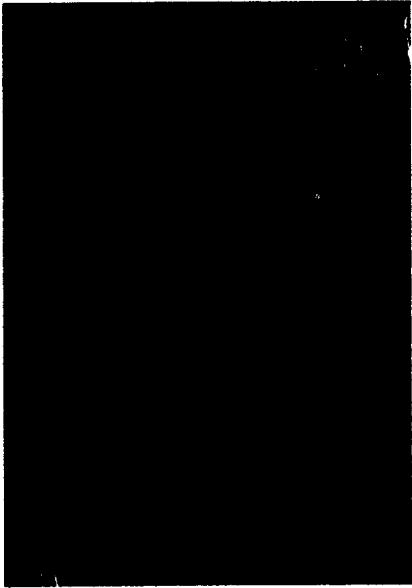


Site 38: Backfilling



Site 38: Finished

J.J. SOSA & ASSOCIATES, Inc.		SITE PHOTOGRAPHS		JOB #: 02016N	Task: 0100
5811 Memorial Highway, Suite 207 Tampa, Florida Phone: (813) 888-0025		Soil Removal		DATE:	
				LOCATION: NAS Whiting Field, Milton, Florida	
				PAGE: CHECKED BY:	



Site 38: Finished

J.J. SOSA & ASSOCIATES, Inc. 5811 Memorial Highway, Suite 207 Tampa, Florida Phone: (813) 888-8825	SITE PHOTOGRAPHS Soil Removal	JOB #:	02016N	Task:	0100
		DATE:			
		LOCATION: NAS Whiting Field, Milton, Florida			
		PAGE:			
CHECKED BY:					

June 12, 2002

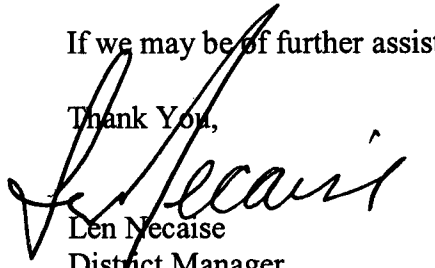
Amy Twitty, P.G.
CH2MHill
Project Manager/Group Leader
1766 Sea Lark Lane
Navarre, Florida 32566

Dear Ms. Twitty;

Attached are the "Certificate of Disposals" you have requested for U.S. Navy; Milton, Florida. Billed to customer: J.J. Sosa & Assoc. Profile Number: CR1235.

If we may be of further assistance, please feel free to contact us.

Thank You,



Len Necaise
District Manager
Springhill Landfill
Waste Management
4945 Hwy 273
Campbellton, Florida 32426

Springhill Landfill

<u>Ticket</u>	<u>Load</u>	<u>WSid</u>	<u>User</u>	<u>Hauler</u>	<u>Truck</u>	<u>Customer</u>	<u>Source</u>	<u>Product</u>	<u>Profile</u>	<u>Date</u>	<u>TimeIn</u>	<u>TimeOut</u>	<u>Gross</u>	<u>Tare</u>	<u>Net</u>	<u>Yards/Units</u>	<u>Cost</u>	<u>V</u>	<u>M</u>	<u>E</u>
1Spring Hill Landfill																				
308344	10		CM	JD	1	JJ	154	131		5/10/2002	1:04:16P	1:37:33P	29.49	13.83	15.66	0.00	\$388.37			G
308366	10		CM	BRINSO	B8	JJ	154	131		5/10/2002	3:02:21P	3:20:26P	30.37	12.22	18.15	0.00	\$450.12			G
308375	10		CM	BRINSO	B10	JJ	154	131		5/10/2002	3:36:29P	3:59:13P	29.55	12.56	16.99	0.00	\$421.35			
308434	10		CM	BRINSO	B1	JJ	154	131		5/11/2002	11:24:43A	11:41:42A	31.74	13.54	18.20	0.00	\$451.36			
308480	10		CM	JD	1	JJ	154	TRA		5/13/2002	8:53:10A	8:53:10A	13.97	13.97	0.00	69.00	\$1,324.80	M		
308600	10		CM	JD	1	JJ	154	131		5/14/2002	7:12:34A	7:13:09A	32.09	13.97	18.12	0.00	\$449.38			G
308600	20		CM	JD	1	JJ	154	TRA		5/14/2002	7:12:34A	7:13:09A	13.97	13.97	0.00	18.21	\$349.63			G
308675	10		CM	JD	1	JJ	154	131		5/14/2002	1:53:24P	1:54:00P	25.04	13.97	11.07	0.00	\$274.54			
308675	20		CM	JD	1	JJ	154	TRA		5/14/2002	1:53:24P	1:54:00P	13.97	13.97	0.00	11.07	\$212.54			
308774	10		CM	TONYS	T6	JJ	154	131		5/15/2002	11:15:15A	11:35:21A	32.43	14.09	18.34	0.00	\$454.83			
308775	10		CM	TONYS	T6	JJ	154	TRA		5/15/2002	11:36:38A	11:36:38A	14.09	14.09	0.00	18.34	\$352.13			
308815	10		CM	BRINSO	B8	JJ	154	131		5/15/2002	1:59:12P	3:20:15P	30.23	17.30	12.93	0.00	\$320.66			G
308816	10		CM	BRINSO	B8	JJ	154	TRA		5/15/2002	3:21:45P	3:21:45P	12.51	12.51	0.00	12.93	\$248.26			
308836	10		CM	TONYS	T6	JJ	154	131		5/16/2002	6:18:26A	6:19:02A	30.99	14.09	16.90	0.00	\$419.12			G
308836	20		CM	TONYS	T6	JJ	154	TRA		5/16/2002	6:18:26A	6:19:02A	14.09	14.09	0.00	16.90	\$324.48			G
308928	10		CM	BRINSO	07	JJ	154	131		5/16/2002	2:05:46P	2:06:14P	31.80	12.50	19.30	0.00	\$478.64			G
308928	20		CM	BRINSO	07	JJ	154	TRA		5/16/2002	2:05:46P	2:06:14P	12.50	12.50	0.00	19.30	\$370.56			G

1 Total Tickets 13 Total Loads 17

In Tons :	165.66	Total Product Cost :	\$7,290.77
Out Tons :	0.00		
Total In&Out Tons :	165.66		

1 Total Tickets 13 Total Loads 17

In Tons :	165.66	Total Product Cost :	\$7,290.77
Out Tons :	0.00		
Total In&Out Tons :	165.66		

Springhill Landfill

<u>ket</u>	<u>/Log</u>	<u>WSid</u>	<u>User</u>	<u>Hauler</u>	<u>Truck</u>	<u>Customer</u>	<u>Source</u>	<u>Product</u>	<u>Profile</u>	<u>Date</u>	<u>TimeIn</u>	<u>TimeOut</u>	<u>Gross</u>	<u>Tare</u>	<u>Net</u>	<u>'ards/Units</u>	<u>Cost</u>	<u>Y</u>	<u>M</u>	<u>E</u>
1Spring Hill Landfill																				
308480	1	0	CM	JD	1	JJ	154	TRA		5/13/2002	8:53:10A	8:53:10A	13.97	13.97	0.00	69.00	\$1,324.80		M	
308600	2	0	CM	JD	1	JJ	154	TRA		5/14/2002	7:12:34A	7:13:09A	13.97	13.97	0.00	18.21	\$349.63			G
308675	2	0	CM	JD	1	JJ	154	TRA		5/14/2002	1:53:24P	1:54:00P	13.97	13.97	0.00	11.07	\$212.54			
308775	1	0	CM	TONYS	T6	JJ	154	TRA		5/15/2002	11:36:38A	11:36:38A	14.09	14.09	0.00	18.34	\$352.13			
308816	1	0	CM	BRINSO	B8	JJ	154	TRA		5/15/2002	3:21:45P	3:21:45P	12.51	12.51	0.00	12.93	\$248.26			
308836	2	0	CM	TONYS	T6	JJ	154	TRA		5/16/2002	6:18:26A	6:19:02A	14.09	14.09	0.00	16.90	\$324.48			G
308928	2	0	CM	BRINSO	07	JJ	154	TRA		5/16/2002	2:05:46P	2:06:14P	12.50	12.50	0.00	19.30	\$370.56			G

1 Total Tickets 7 Total Loads 7

In Tons :	0.00	Total Product Cost :	\$3,182.40
Out Tons :	0.00		
Total In&Out Tons :	0.00		

otal Tickets 7 Total Loads 7

In Tons :	0.00	Total Product Cost :	\$3,182.40
Out Tons :	0.00		
Total In&Out Tons :	0.00		

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 19.30

Scale Ticket Number: 308928 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

Certified By:

Len Necaie

District Manager

Springhill Landfill

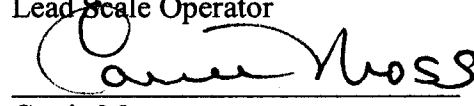
Waste Management


Len Necaie

Prepared By:

Carrie Moss

Lead Scale Operator


Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

300920

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

BRINSON SAND & GRAVEL

07

CM

02:05:46 P

02:06:14

5/16/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 63,600.00

Tare Lbs: 25,000.00

Net Lbs: 38,600.00

All Adjustments: 0.00

Adjusted Lbs: 38,600.00

Adjusted Tons: 19.30

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5011 MEMORIAL HIGHWAY SUITE 207

TAMPA FL 33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:



CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

19.30

TONS

\$24.80

\$478.64

~~131 \ TRANSPORTATION CHARGES~~

~~19.30~~

~~UNIT~~

~~\$19.20~~

~~\$370.56~~

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

~~709.20~~

SFI OF TEXAS • TOLL FREE 1-866-713-9278

22230

111-023

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 16.90

Scale Ticket Number: 308836 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

Certified By:
Len Necaie
District Manager
Springhill Landfill
Waste Management

Len Necaie

Prepared By:
Carrie Moss
Lead Scale Operator



Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308836

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

TONYS HAULING & LEASING INC

T5

CM

06:18:26 A

06:19:02

5/16/2002

JJ

J.J. SOSA & ASSOCIATES

GROSS Lbs: 61,980.00

Tare Lbs: 28,180.00

Net Lbs: 33,800.00

All Adjustments: 0.00

Adjusted Lbs: 33,800.00

Adjusted Tons: 16.90

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5811 MEMORIAL HIGHWAY SUITE 207

TAMPA

FL

33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:



CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

16.90

TONS

\$24.80

\$419.12

~~131 \ TRANSPORTATION CHARGES~~

~~16.90~~

~~UNIT~~

~~\$19.20~~

~~\$324.48~~

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

~~\$743.60~~

SFI OF TEXAS • TOLL FREE 1-866-713-9278

111-023

0248
22230

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

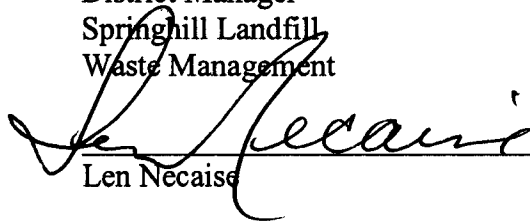
Total Tons: 12.93

Scale Ticket Number: 308815 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

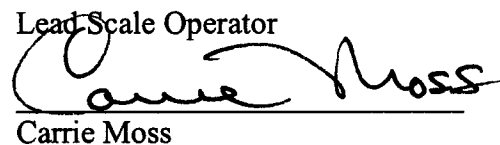
Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

Certified By:
Len Necaie
District Manager
Springhill Landfill
Waste Management



Len Necaie

Prepared By:
Carrie Moss
Lead Scale Operator



Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308815

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

BRINSON SAND & GRAVEL

BS

CM

01:59:12 D

02:20:15

5/15/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 60,460.00

Tare Lbs: 34,600.00

Net Lbs: 25,860.00

All Adjustments: 0.00

Adjusted Lbs: 25,860.00

Adjusted Tons: 12.93

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5811 MEMORIAL HIGHWAY SUITE 207

TAMPA FL

33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:

MANIFEST #223276



CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

12.93

TONS

\$24.80

\$320.66

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

\$320.66

SF OF TEXAS • TOLL FREE 1-866-713-9278

22230

111-023

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 18.34

Scale Ticket Number: 308774 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

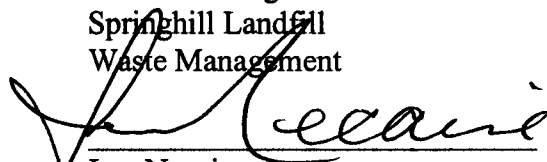
Certified By:

Len Necaie

District Manager

Springhill Landfill

Waste Management


Len Necaie

Prepared By:

Carrie Moss

Lead Scale Operator


Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308774

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

TONYS HAULING & LEASING INC

T6

CM

11-15-15 A

11-25-21

5/15/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 64,860.00

Tare Lbs: 28,180.00

Net Lbs: 36,680.00

All Adjustments: 0.00

Adjusted Lbs: 36,680.00

Adjusted Tons: 18.34

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5811 MEMORIAL HIGHWAY SUITE 207

TAMPA FL 33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:

MANIFEST #223274



CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

18.34

TONS

\$24.80

\$454.83

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

\$454.83

SFI OF TEXAS • TOLL FREE 1-866-713-9278

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 11.07

Scale Ticket Number: 308675 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

Certified By:

Len Necaie

District Manager

Springhill Landfill

Waste Management

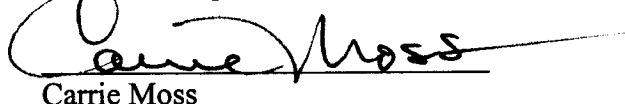


Len Necaie

Prepared By:

Carrie Moss

Lead Scale Operator



Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

300675

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

JD TRUCKING

1

CM

01:53:24 P

01:54:00

5/14/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 50,080.00

Tare Lbs: 27,940.00

Net Lbs: 22,140.00

All Adjustments: 0.00

Adjusted Lbs: 22,140.00

Adjusted Tons: 11.07

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5811 MEMORIAL HIGHWAY SUITE 207

TAMPA

FL

33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:



CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

~~131 \ TRANSPORTATION CHARGES~~

TOTAL FEES

TOTAL TAX

TOTAL AMOUNT

11.07

TONS

\$24.80

\$274.54

~~11.07~~

~~UNIT~~

~~\$10.20~~

~~\$212.54~~

0.00

0.00

~~\$487.08~~

SFI OF TEXAS • TOLL FREE 1-866-713-9278

22230

111-023

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 18.12

Scale Ticket Number: 308600 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

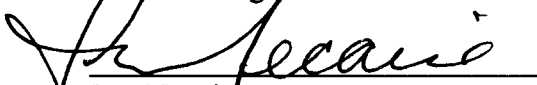
Certified By:

Len Necaise

District Manager

Springhill Landfill

Waste Management


Len Necaise

Prepared By:

Carrie Moss

Lead Scale Operator


Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308600

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

JD TRUCKING

1

CM

07-12-34 A

07-13-09

5/14/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 64,180.00

Tare Lbs: 27,940.00

Net Lbs: 36,240.00

All Adjustments: 0.00

Adjusted Lbs: 36,240.00

Adjusted Tons: 18.12

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5811 MEMORIAL HIGHWAY SUITE 207

TAMPA

FL

33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:



CONTAMINATED SOIL

121 \ CONTAMINATED SOIL

18.12

TONS

\$24.80

\$449.38

~~121 \ TRANSPORTATION CHARGES~~

~~18.12~~

~~UNIT~~

~~\$18.80~~

~~\$247.00~~

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

~~\$497.28~~

SFI OF TEXAS • TOLL FREE 1-866-713-9278

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 18.20

Scale Ticket Number: 308434 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

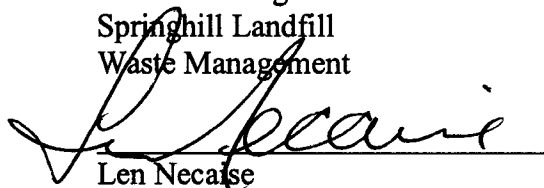
Certified By:

Len Necaise

District Manager

Springhill Landfill

Waste Management

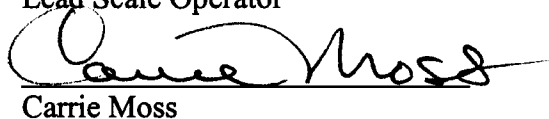


Len Necaise

Prepared By:

Carrie Moss

Lead Scale Operator



Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308434

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

BRINSON SAND & GRAVEL

B1

CM

11-24-03 A

11-41-42

5/11/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 63,480.00

231403

Tare Lbs: 27,080.00

J.J. SOSA & ASSOCIATES

Net Lbs: 36,400.00

ATTN: JOSH WALLACE

All Adjustments: 0.00

5611 MEMORIAL HIGHWAY SUITE 207

Adjusted Lbs: 36,400.00

TAMPA

FL

33615

Adjusted Tons: 18.20

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

MANIFEST #245835

Destination:



231403

231403

CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

18.20

TONS

\$24.80

\$451.36

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

\$451.36

SFI OF TEXAS • TOLL FREE 1-888-713-9278

22230

111-023

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 16.99

Scale Ticket Number: 308375 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

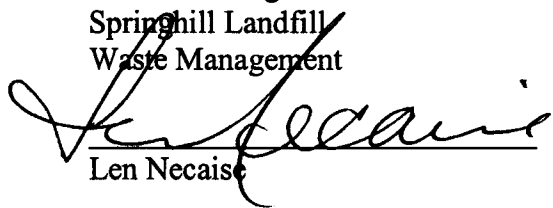
Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

Certified By:

Len Necaie

District Manager

Springhill Landfill
Waste Management




Len Necaie

Prepared By:

Carrie Moss

Lead Scale Operator



Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308375

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

BRINSON SAND & GRAVEL

R10

CM

03:36:29 P

03:59:13

5/10/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 59,100.00

Tare Lbs: 25,120.00

Net Lbs: 33,980.00

All Adjustments: 0.00

Adjusted Lbs: 33,980.00

Adjusted Tons: 16.99

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5811 MEMORIAL HIGHWAY SUITE 207

TAMPA FL 33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:



CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

16.99

TONS

\$24.80

\$421.35

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

\$421.35

SFI OF TEXAS TOLL FREE 1-888-713-9278

111-023

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 18.15

Scale Ticket Number: 308366 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.


Certified By:

Len Necaie

District Manager

Springhill Landfill


Waste Management


Len Necaie

Prepared By:

Carrie Moss

Lead Scale Operator


Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308366

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

BRINSON SAND & GRAVEL

BA

CM

03-02-21 P

03-20-26

5/10/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 60,740.00

Tare Lbs: 24,440.00

Net Lbs: 36,300.00

All Adjustments: 0.00

Adjusted Lbs: 36,300.00

Adjusted Tons: 18.15

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5011 MEMORIAL HIGHWAY SUITE 207

TAMPA FL

33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:



CONTAMINATED SOIL

191 \ CONTAMINATED SOIL

18.15

TONS

\$24.80

\$450.12

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

\$450.12

Springhill Landfill Waste Management Certificate Of Disposal

Date: June 12, 2002

Company (Customer Billed): J.J. Sosa & Assoc. Contact: Josh Wallace

Address: 5811 Memorial Hwy Suite 207; Tampa, Florida 33615

Generator: U.S. Navy; Milton, Florida Profile Number: CR1235

Total Tons: 15.66

Scale Ticket Number: 308344 Dates Of Loads: May 2002

Springhill Landfill, Waste Management, 4945 Hwy 273; Campbellton, Florida 32426; hereby declares the above profiled material has been disposed of at Springhill Landfill on the dates listed above. Summary of material is attached.

Thank you for using Springhill Landfill. We sincerely appreciate your business. We hope your experience with us has been to your satisfaction.

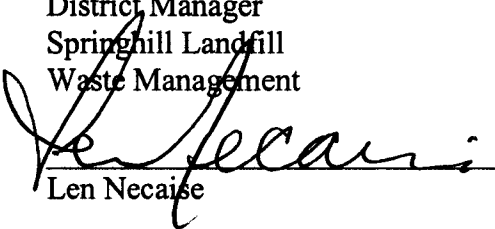
Certified By:

Len Necaise

District Manager

Springhill Landfill


Waste Management


Len Necaise

Prepared By:

Carrie Moss

Lead Scale Operator


Carrie Moss

DRIVER: PLEASE SIGN HERE

Springhill Landfill
4945 Highway 273

308344

Campbellton, FL 32426
(850) 263-7100

ORIGINAL

JD TRUCKING

1

CM

01:04:16 P

01:37:33

5/10/2002

JJ J.J. SOSA & ASSOCIATES

GROSS Lbs: 58,980.00

Tare Lbs: 27,660.00

Net Lbs: 31,320.00

All Adjustments: 0.00

Adjusted Lbs: 31,320.00

Adjusted Tons: 15.66

J.J. SOSA & ASSOCIATES

ATTN: JOSH WALLACE

5811 MEMORIAL HIGHWAY SUITE 207

TAMPA FL 33615

HOURS OF OPERATION

MON-FRI 6AM-4PM

SAT 6AM-12PM

Visit Us At: www.SpringhillLandfill.com

SANTA ROSA

Destination:

MANIFEST 245832



CONTAMINATED SOIL

131 \ CONTAMINATED SOIL

15.66

TONS

\$24.80

\$388.37

TOTAL FEES

0.00

TOTAL TAX

0.00

TOTAL AMOUNT

\$388.37

SFI OF TEXAS • TOLL FREE 1-866-713-9278